MEXICO'S ROLE IN THE DEADLY RISE OF FENTANYL

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Prologue

In October 2017, President Donald Trump declared the opioid epidemic a national public health emergency, citing record deaths from opioids and expressing a belief that his administration could end “the opioid epidemic”. As part of his strategy, the President claimed that “90% of the heroin in America comes from south of the border” and called for the construction of a border wall to stem the flow.

While it is true that a large percentage of the heroin sold in the United States comes from Mexico, the message musseed the larger point. By far, the fastest growing class of opioid-caused deaths in 2017 was fentanyl and similar drugs. According to the Centers for Disease Control and Prevention, 70,273 people died from drug overdoses. Of these, 28,466 involved fentanyl or a similar synthetic drug. Horrifically, this was a 45% increase over 2016.

While we can debate the potential effectiveness of a border wall in stopping overall drug flows into the United States, the trouble with fentanyl is that, due to its highly concentrated nature, it can be transported easily, in small quantities, and can have a devastating impact on public health. As this publication by the Mexico Institute and InSight Crime emphasizes, Mexican anti-narcotics policy has been slow to recognize the horrific potential of Fentanyl and bilateral cooperation on the drug has not kept up with the explosive development of the market.

It is vital that Mexican public policy-makers and their US counterparts engage in conversations focusing on counter-fentanyl planning and strategy in order to develop effective means of addressing the problem of the drug in Mexico and in the United States. As a recent Wilson Center Mexico Institute publication by Eric Olson has argued, a common solution to a shared problem must be found:

“The principles of shared responsibility and bilateral collaboration are fundamentally important to successful security cooperation. Illicit economies, whether smuggling drugs, humans, or other products, do not respect borders, so it is essential for both countries to work together to address these complex problems. The United States and Mexico should reaffirm their commitment to the framework of shared responsibility for addressing the security challenges that threaten both countries.”

This timely publication by the Mexico Institute and Insight Crime hopes to provide both analysis and recommendations for policy-makers. As Mexico’s new government begins to modify its public security and anti-narcotics strategy, an informed public debate will be essential to finding long-term effective solutions.

Duncan Wood, PhD
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Executive Summary

Since surging into the market in 2013, fentanyl has become the most lethal category of opioid in the United States. The Centers for Disease Control and Prevention (CDC) estimated that more than 47,000 people died from an opioid overdose in 2017 in the United States—28,000 of those deaths were due to synthetic opioids, which the CDC says is largely the result of the uptick in abuse of fentanyl.

This investigation sought to better situate Mexico’s role in the fentanyl trade. Chinese companies produce the vast majority of fentanyl, fentanyl analogues, and fentanyl precursors, but Mexico is becoming a major transit and production point for the drug and its analogues as well, and Mexican traffickers appear to be playing a role in its distribution in the United States.

To investigate Mexico’s role, we found we had to look at the entire distribution chain. InSight Crime employed two researchers in Mexico, two in the United States, and two in Colombia who combed all the databases, scoured through judicial documents, filed freedom of information requests, and executed dozens of interviews in Mexico and the United States with law enforcement, prosecutors, health specialists, and others. The result is a nuanced picture but one with troubling implications for the future of drug trafficking and drug consumption.

While seemingly dominated by two large criminal groups in Mexico, the fentanyl trade requires vast networks of smaller subcontractors who specialize in importing, producing, and transporting synthetic drugs. Both large and small organizations appear to be taking advantage of the surge in popularity of the drug, which is increasingly laced into other substances such as cocaine, methamphetamine, and marijuana—very often without the end-user knowing it. To be sure, rising seizures of counterfeit oxycodone pills laced with fentanyl illustrate that the market is maturing in other ways as well.

Fentanyl’s potency also opens the door to entrepreneurs who bypass Mexico altogether, obtaining their supplies directly from China and selling them on the dark web. There is little public understanding of the prevalence of this part of the trade and even less of its medium- and long-term implications. The low barrier of entry into this market and its high returns make for a frightening future in which synthetic drugs of all types could proliferate.
Major Findings

- Fentanyl lends itself to drug trafficking in many respects and therefore may represent how the drug trade might move in the future to more portable and intoxicating synthetic substances.
- Fentanyl is potent. Small amounts mean less risk in the production and transport process but still significant profits.
- Production of fentanyl is also relatively simple and cheap, opening the door for smaller groups to enter the trade using small spaces and moving small quantities over the dark web.
- China produces nearly all of the fentanyl, fentanyl analogues, and fentanyl precursors in the world, although India—with its large chemical infrastructure—appears poised to make an entry into the market, and Mexican traffickers are starting to produce it as well using precursors obtained mostly in China.
- Mexico is a growing transit and production point for fentanyl, with most of the product entering via the ports of Manzanillo and Lázaro Cárdenas.
- Mexico’s two largest criminal organizations—the Sinaloa Cartel and the Jalisco Cartel New Generation (Cartel de Jalisco Nueva Generación - CJNG)—are the most important Mexican purveyors of the drug and its precursors, although smaller criminal organizations and contractors may play significant roles in production and transport of the drug along the distribution chain.
- It is not clear how much Mexico-sourced fentanyl is being consumed in the United States. There are conflicting accounts of how much is arriving directly from China versus how much is coming via Mexico.
- US authorities say Dominican traffickers are the main suppliers to end-consumers in the Northeast of the US, although Mexican trafficking networks do play a significant role.
- Heroin and fentanyl are often trafficked together, but fentanyl and methamphetamine may have more in common in the production phase and are increasingly seen at the end-user stage.
- Legacy criminal organizations with experience importing chemicals for methamphetamine production from Asia seem to be the best-positioned to take advantage of this surge in fentanyl use.
- Mexico’s government does not see fentanyl as an important issue yet and has not devoted significant resources towards finding the principal drivers of the trade inside its borders.
Part I – Origins of the Epidemic

Fentanyl is a highly potent synthetic opioid meant to curb pain. Abuse in the United States began in earnest in 2014, after a long period of over prescription of pain medications that led users from the pharmacies to the streets. Although there is some indication that India is entering the fentanyl market, production is almost solely the domain of China, where regulation is lax, and small and large criminal organizations have long-established ties to international networks or are connecting to customer bases via the internet and direct mail services. China also exports precursor chemicals to Mexico for the illicit production of the drug, a topic we will cover in Part II.

Fentanyl – The US Epidemic

The earliest reports of US fentanyl overdoses trace back to the 1970s during the first heroin epidemic.\(^1\) Given their potency, fentanyl and its analogues occupied a small percentage of the total illicit drug supply in the United States over the next few decades—save for two brief spates of overdose deaths in 1991 and 2006. But, starting in the late 1990s with the overprescribing of addictive prescription pain medications, opioid addiction took root in the United States.\(^2\) Given that addiction is a progressive disease\(^3\) and due to the lack of sufficient treatment options in the United States, people who developed opioid use disorders because of prescription pain medication misuse began switching to administering heroin towards the start of this decade.\(^4\)

Most public health leaders and advocates interviewed for this study believed that the next logical step for people with heroin use disorders was fentanyl misuse, with some maintaining that stronger synthetic opioids and fentanyl analogues represent a logical next step after fentanyl. Still, there is considerable debate concerning whether users are aware they are taking fentanyl. Given the similar effects the drug provokes in users, it is difficult to differentiate.

What’s more, as we will describe, production is increasingly coming in pill form, usually counterfeit oxycodone or other prescription opioids, giving rise to the idea that many end users think they are consuming prescription pain medications when they first consume fentanyl. Research also suggests that some users may have moved straight from prescription painkillers to fentanyl, skipping the heroin step altogether, although data is preliminary and anecdotal at this stage.

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\(^2\) Sam Quinones, "Dreamland: The True Tale of America's Opiate Epidemic" (New York 2015).


Data from the Drug Enforcement Administration National Forensic Laboratory Information System (NFLIS) indicates a drastic increase in reports of fentanyl and fentanyl-family exhibits—samples from law enforcement drug seizures sent for testing at forensic labs—during this decade. From less than 700 in 2012, fentanyl exhibit reports exploded to more than 32,000 in 2016. Along with overdose death figures, emergency department data and interviews, exhibit reports point to 2014 as the year of the outbreak of what has become an epidemic: the latest NFLIS report chronicled 56,530 fentanyl and fentanyl-analogue exhibits during 2017, nearly doubling 2016’s exhibits.

Furthermore, the latest available NFLIS data also indicates that fentanyl’s market share is growing within the illicit opioid consumption market. While fentanyl came in second behind oxycodone as the most submitted narcotic analgesic in 2016, data for 2017

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6 Ibid.
shows that fentanyl exhibit reports outnumber those for prescription pain medications, even without counting fentanyl analogues.\textsuperscript{8}

This surge in fentanyl exhibits closely tracks with fentanyl-related overdoses, which appear to have spiked since 2014, when the 4,200 fentanyl-related deaths represented less than 9 percent of lethal overdoses that year.\textsuperscript{9} The CDC has not published stand-alone figures for fentanyl-related deaths in more recent years. But the center’s data shows that overdose deaths related to synthetic opioids other than methadone—a category dominated by deaths due to illicitly manufactured fentanyl—have risen significantly both as a proportion of total overdose deaths and in gross quantity.\textsuperscript{10} The CDC estimates that this fentanyl-dominated category may be responsible for over 30,000 deaths through the 12-month period ending May 2018, highlighting a fentanyl overdose epidemic within a global US drug overdose epidemic that is predicted to have claimed more than 71,000 lives in the same time period.\textsuperscript{11}

**Fentanyl and Precursor Production in China**

According to US officials, China is the principal source country of illicit fentanyl, fentanyl analogues, and fentanyl precursors found in the United States.\textsuperscript{12} Some US officials claim that China produces more than 90 percent of the world’s fentanyl.\textsuperscript{13} The US-China Economic and Security Review Commission has also said that Chinese companies are responsible for exporting various fentanyl-related products including “raw fentanyl, fentanyl precursors, fentanyl analogues, fentanyl-laced counterfeit pills like oxycodone, and pill presses and other machinery necessary for fentanyl production.”\textsuperscript{14}

China’s role in supplying the majority of synthetic opioids to the American market is directly linked to its vast, poorly regulated pharmaceutical and chemical industries. Over the years, China has risen to become the second biggest pharmaceutical industry

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\textsuperscript{8} Fentanyl exhibits also include fentanyl found laced into other substances such as heroin or cocaine.  
\textsuperscript{10} Centers for Disease Control and Prevention, “Overdose Deaths Involving Opioids, Cocaine, and Psychostimulants - United States, 2015-2016,” March 2018. Available at: http://dx.doi.org/10.15585/mmwr.mm6712a1  
\textsuperscript{14} US-China Economic and Security Review Commission, “Fentanyl: China’s Deadly Export to the United States,” February 2017. Available at: https://www.uscc.gov/sites/default/files/Research/USCC%20Staff%20Report_Fentanyl-China%E2%80%99s%20Deadly%20Export%20to%20the%20United%20States%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%
in the world behind the United States, bringing in an annual revenue of $122 billion.\textsuperscript{15} At the same time, China has become the world’s number one exporter of active pharmaceutical ingredients (API’s) and inert substances.\textsuperscript{16}

The current fentanyl overdose epidemic is almost entirely attributed to illicitly manufactured fentanyl, and not to the diversion of legal, pharmaceutical fentanyl from China or from the United States, according to the CDC and DEA.\textsuperscript{17} Instead, US officials believe that pharmaceutical or chemical companies produce fentanyl as a third-shift operation at Chinese pharmaceutical factories in southern China.\textsuperscript{18} Officials also believe that Chinese transnational criminal organizations, along with other smaller criminal actors use diverted chemicals to manufacture fentanyl in rural clandestine labs.

An estimated 160,000 chemical companies are currently operating either legally or illegally in China, according to the US Department of State.\textsuperscript{19} Like with the pharmaceutical industry, China’s chemical industry suffers from poor regulation, thus allowing fentanyl precursor chemicals such as ANPP and NPP to be diverted into clandestine labs by criminal groups.\textsuperscript{20} A lack of oversight paired with administrative inefficiencies has also allowed illegal chemical factories to spring up and manufacture significant quantities of precursors.\textsuperscript{21}

From China, pure powdered fentanyl, fentanyl pills, and fentanyl precursors are either sent to Mexico or mailed directly to the United States, often with pill presses and binding agents.\textsuperscript{22, 23} When sending fentanyl in any form or pill presses, Chinese groups will often mislabel the product in order to avoid detection.\textsuperscript{24}

\begin{flushleft}
\textsuperscript{18} The DEA was unwilling to disclose information about Chinese chemical and/or pharmaceutical companies that are believed to be illicitly producing fentanyl.
\textsuperscript{21} Ibid.
\textsuperscript{22} Ibid.
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Illicit Networks in China

The movement of fentanyl from clandestine labs and precursor chemicals to Chinese ports is a dynamic that was not the purview of this report and one that requires further investigation. According to the DEA, it is difficult to track the origin of precursor chemicals or clandestinely-produced fentanyl because of the intricate network of freight forwarding companies commonly employed by criminal groups to conceal the origin of the product—a strategy often used by criminal groups moving drugs and contraband around the world in shipping containers in order to hide their trail.\(^{25}\)

Criminal groups will also purposefully mislabel fentanyl and fentanyl-analogues, precursor chemicals and pill presses when shipping in order to evade inspection—the DEA in Mexico claims that all fentanyl entering Mexican ports in shipping containers is mislabeled.\(^{26}\) In May 2015, for example, 46 kilograms of fentanyl and 26 kilograms of acetyl fentanyl destined for Mexico were seized by Chinese customs officials. Chinese officials later learned that the illicit cargo had gone through five different freight forwarding companies before arriving at customs.\(^{27}\)

China has attempted to control the development of countless numbers of fentanyl analogues and precursor chemicals. But implementation of these initiatives has proven difficult as law enforcement and drug investigators struggle to keep track of high levels of pharmaceutical and chemical output.\(^{28}\) Furthermore, as fentanyl addiction and overdose deaths are not problems in China, it currently takes scheduling and interdiction actions at the behest of the United States, making this relationship dependent on the changing dynamics of the US-China relationship.\(^{29}\)

But some positive efforts are being made, and United States officials said that the bilateral relationship with China on this issue is open and developing. In 2015, the Chinese Food and Drug Administration made 116 psychoactive substances, along with six fentanyl analogues, controlled substances, and in February 2018, newly created controls on five fentanyl precursors including ANPP and NPP went into effect.\(^{30}\)


\(^{26}\) Ibid.

\(^{27}\) Ibid.


The impact that these controls will have on limiting the diversion of fentanyl precursor to clandestine laboratories, or the export of said chemicals to criminal groups in Mexico and the United States, remains to be seen.

**CASE STUDY – A China Chemical Plant**

_In October, 2017, two Chinese men—Xiaobing Yan and Jian Zhang—were indicted for conspiring to manufacture and distribute “large quantities” of fentanyl and fentanyl analogues in the United States._

Although they used multiple names and company identities over a period of six years, investigators were able to trace the fentanyl shipments back to four clandestine labs and two chemical plants in China. It was the first known indictment of Chinese nationals for the production of fentanyl.

The two chemical plants operated by Yan “were capable of producing ton quantities of fentanyl and fentanyl analogues,” according to an official US Department of Justice press release. Apart from the two Chinese nationals, 19 others were indicted for conspiring to distribute the illicitly-produced fentanyl and fentanyl analogues throughout the United States.

The indictments also provide further evidence of the substances exported from China directly to the United States and with Canada as a transshipment point, and shed light into how quickly Chinese groups can alter fentanyl-family substances to escape scheduling efforts.

Yan closely monitored scheduling decisions and law enforcement activities to modify the structure of his chemical analogues to avoid detection. He exported these fentanyl analogues, as well as fentanyl, directly to the United States via mail. The second indictment suggests a similar narrative. This individual operated four labs and exported fentanyl, fentanyl analogues, as well as pill presses, stamps, and other materials to shape fentanyl into pills in the United States.

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32 Ibid.

33 Ibid.

India – Emerging Fentanyl Producer?

In September 2018, Indian authorities arrested three people, including a Mexican national, in possession of 10 kilograms of fentanyl hydrochloride, a salt form of the synthetic opioid. Investigators told local media that the fentanyl was produced at a chemical factory in India run by the two Indian suspects.

The arrest startled but did not surprise US authorities contacted by InSight Crime. India, along with China, provides the bulk of chemical precursors used in the manufacturing of methamphetamine in Mexico. To be sure, as we detail later in this report, we believe that organizations who have traditionally dealt in methamphetamine are some of the best positioned to take advantage of the burgeoning fentanyl trade.

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35 Hindustan Times, “Three including Mexican arrested with drugs worth over Rs 100 crore in MP,” 28 September 2018. Available at: https://www.hindustantimes.com/bhopal/three-including-mexican-arrested-with-drugs-worth-over-rs-100-crore-in-mp/story-rWAY9xAguc434pYgPtRLPK.html
Part II – Fentanyl – The Mexico Gateway

Mexico is by far the most important gateway for fentanyl and precursor chemicals into the region via ship. It is also a hub of production and export of fentanyl to the United States. Myriad Mexican criminal organizations appear to be managing the processing, storage, and shipment of fentanyl, although two in particular—the Jalisco Cartel New Generation (Cartel de Jalisco Nueva Generación – C[JNG]) and the Sinaloa Cartel—seem to exert control over the transport into the United States.

Mexico – Ports of Entry

For several reasons outlined in this section, US officials believe that Mexico is the main hub of transit and production of fentanyl in the hemisphere. To begin with, several maritime ports in Mexico have long played a major role in the illegal importation of chemical precursors for the manufacturing of illicit drugs, sometimes leading to major violence in those areas. Maritime ports handle large volumes of merchandise and a significant portion of international trade, particularly between Asia and Mexico, which
makes them logistically ideal for both legal and illegal trading of large volume substances.

Mexico has 22 maritime ports that reported register cargo movement in 2016 (the last year for which there is complete yearly data). Out of the 22, the 10 largest account for 84 percent of the total import-export tonnage. However, there is little indication that many or even most ports are actually used for illegal chemical precursor trafficking, and even less that they are being used to introduce fentanyl products. In fact, 3 of the 10 major ports account for over 87 percent of the total chemical precursor seizures by the Navy between 2007 and 2018: Manzanillo, which accounts for the lion’s share of seizures, Lázaro Cárdenas, and Veracruz.36

Most of the fentanyl or its ingredients arriving from China via containers is being hidden in plain sight by being mislabeled, according to DEA sources in Mexico City. The main ports being used are those on the Pacific coast—Manzanillo in the state of Colima and Lázaro Cárdenas in Michoacán.

The concentration of trafficking activity in these ports points to longstanding control of them by organized crime groups. According to the Secretary of the Navy (Secretaría de Marina – SEMAR), there has been little effective oversight of the ports.37 Two former high-ranking Federal Police officials who were directly involved in several operations in and around Lázaro Cárdenas from 2008 to 2015 corroborated this sentiment.38 The police said their investigations revealed widespread corruption and intimidation amongst the civilian port managers and a “marked reticence” to implement basic counternarcotic measures and to denounce illegal or suspicious activities, which extended to the customs officials attached to the port. The officials also emphasized that at least one criminal group, the Familia Michoacana, was engaged in illegal mineral exports through the port, as was widely reported at the time.

A former high-ranking official from the Ministry of the Interior (Secretaría de Gobernación – SEGOB) confirmed there was also evidence of collusion and intimidation in Manzanillo port and gave credence to reports that a significant amount of the violence around the port has long been related to illegal chemical precursor trafficking by local and national criminal groups. However, he emphasized that investigating customs and port officials and civilian employees without unduly disrupting legal

37 Between 1976 and 2017, port security was managed directly by the Ministry of Communications and Transportation (Secretaría de Comunicaciones y Transportes - SCT). In 2013, the Federal Police, the Army and the Navy intervened in the Lázaro Cárdenas port and its municipality, taking control of port security. And in 2014, the Navy intervened in the Manzanillo port. But it wasn’t until 2017 that the Navy formally assumed control of port security in all Mexican ports, taking over the Capitanías de Puerto (Harbor Captaincies). See: Pedro Villa y Caña, “Puertos. Marina recupera el control de capitánías,” El Universal, 26 February 2017. Available at: http://www.eluniversal.com.mx/articulo/nacion/seguridad/2017/02/26/puertos-marina-recupera-el-control-de-capitanias.
commerce proved to be extraordinarily difficult, as there were a number of large legal firms that were suspected of some level of involvement in illicit activities.39

Mexico – Production and Transport

Once it arrives in Mexico, pure fentanyl is diluted or mixed with inert matter such as lactose, dipyrene, or acetaminophen. The precursor chemicals that are imported are moved to storage and production points in and around Mexico City, Guadalajara, and Culiacán, according to US and Mexico law enforcement. As detailed in a later section, groups that have traditionally imported precursors and processed methamphetamine seem best positioned to take advantage of this market.

The fentanyl is packed and shipped with other drugs. These poly-drug loads are transported by land, air or sea north to the US border where they cross in individual vehicles, container trucks, or via “mules.” Officials once believed that fentanyl was mixed with white powder heroin or camouflaged as heroin in Mexico. (Experts and law enforcement say that fentanyl cannot be combined with black tar heroin.) However, the most recent seizures show that this rarely happens anymore at the wholesale level. Instead, the fentanyl is moved on its own and mixed with other drugs once it is inside the United States.40

Fentanyl is also pressed into pill form in Mexico for transport and distribution as counterfeit oxycodone or other prescription opioids. Some portion may arrive from China already in pill form, so no further processing is needed. These counterfeit pills bear all the markings of popular prescription pain medications—US prosecutors referred to them as “pressed blues” because they look like blue oxycodone pills—but actually contain fentanyl. The pills give the criminal organizations broader access to the large prescription drug user population, which expands their market share and profit opportunities.41

This counterfeit pill form appears to be the current vehicle of choice. Of nine fentanyl seizures in August 2018 along the San Diego border, for instance, five were in pill form, significantly more than in previous months. Overall, US authorities along the San Diego-Tijuana border say that counterfeit pills represented more than 30 percent of the total fentanyl seizures in FY2018, up from five percent in FY2017. They believe this upward trend will continue, since many fentanyl users are not purposely seeking the dangerous drug, and it generates such high returns. According to the Fentanyl Working Group, a collection of law enforcement agencies working out of the San Diego area, one kilogram

39 InSight Crime interview, high-ranking SEGOB official, 15 July 2018.
41 Ibid.
of fentanyl, which costs $32,000, can make one million counterfeit pills with a street value of $20 million.\(^\text{42}\)

The criminal market for counterfeit drugs is already huge and has relatively low barriers of entry. The United Nations estimates that as much as one-third of the world’s prescription drugs are counterfeit.\(^\text{43}\) In the case of Mexico, initial indications were that smaller criminal groups operating along the US-Mexico border were establishing “pharma cartels” and peddling their drugs over the internet. The larger criminal groups were taxing them for their operations, rather than exerting control at that time. That may change, especially as the larger criminal groups lose hegemony in other criminal markets and look to compete in new markets like fentanyl.

Seizure data suggests that the key trafficking route in Mexico is through the Baja California – California border area. Seizures by Mexican law enforcement have been concentrated around its northwest border with the United States, as well as Jalisco, Michoacán, and Sinaloa.\(^\text{44}\) Although still not a priority for law enforcement in Mexico (bilateral efforts to improve Mexico’s attention to the fentanyl problem and capacity to detect it are currently in full throttle), authorities have been seizing more fentanyl year on year, and there is enough data to illustrate a pattern.

Seizure figures acquired by InSight Crime via freedom of information requests show that the Federal Police and the army seized less than a kilogram of powdered fentanyl in 2013 and none in 2014. However, seizures spiked to nearly 43 kilograms in 2015 and rose to more than 114 kilograms through mid-2018. In terms of fentanyl-laced pills, none were reported until authorities seized some 36,000 in 2017, and over 33,000 through July 2018.

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\(^\text{44}\) Based on FOIA requests to Mexico’s Marines, Defense Department, Attorney General’s Office, and Federal Police, as well as media reports.
Seizure data from the US parallels that of Mexico. During 2016 and 2017, 75 percent of the total poundage of fentanyl seized by US Customs and Border Protection (CBP) was at the Southwest border. What’s more, fentanyl seizures by US officials on the US-Mexico border are skyrocketing, suggesting a sharp uptick in fentanyl trafficking from Mexico. Law enforcement officials along the Southwest border have seen a 700 percent increase in seizures, going from 6 seizures in 2015 to 54 in 2017. Part of this was the result of training dogs to sniff out the fentanyl, but part was an increase in the amounts being transported through this corridor.

Publicly available seizure data from the CBP, Homeland Security Investigations (HSI), and local level law enforcement suggests equally significant increases in fentanyl seizures nationwide. CBP’s Office of Field Operations and Border Patrol surpassed total fentanyl seizures for FY2017 during the first months of FY2018, and seizures have also increased in proportion to total heroin seizures. Additionally, Homeland Security Investigations reported 2,400 pounds of fentanyl seized in FY 2017.\textsuperscript{45}

\textsuperscript{45} US Immigration and Customs Enforcement, “Combatting the Opioid Crisis,” 22 June 2018. Available at: \url{https://www.ice.gov/features/opioid-crisis}
Local law enforcement agencies and federal agencies at the local level have similarly reported drastic increases in fentanyl seizures over the last few years. The Office of the Special Narcotics Prosecutor for the City of New York seized 35 pounds of fentanyl in 2016, and then 670 pounds in 2017, the vast majority of which (491 pounds) was pure fentanyl not cut with any other substances.46

Though publicly available seizure data is hard to find, the trends suggested from an analysis of CBP, HSI, and SNP data all match up with increases in overdose, emergency department, and fentanyl use data nationwide. In looking through all these data sources, it is clear that the fentanyl epidemic has significantly worsened over the last few years, and much of that fentanyl is being manufactured or is transiting Mexico.

To be sure, some US sources believe that fentanyl is already a significant and growing revenue stream for Mexico’s criminal organizations. The perception that Mexican transnational criminal organizations (TCOs) are consciously taking advantage of an opportunity to traffic more fentanyl is backed up by wiretaps obtained by the Office of the Special Prosecutor in New York City that have found evidence that Mexican groups

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are hoping to capitalize on the widespread opioid addiction in the United States by trafficking fentanyl.47

Across the board, reports and sources indicate that Mexican TCOs are intelligent enough to recognize fentanyl trafficking as a strong opportunity to increase their profit margins significantly. A DEA analysis of fentanyl profitability found that one kilogram of heroin stands to net around $80,000, while a kilogram of 99 percent pure fentanyl could net anywhere between $1,280,000 and $1,920,000.48

**Trafficking in Mexico via Air Routes**

Several cases of fentanyl seizures in airports, primarily in the Tijuana International Airport suggest that Mexican criminal groups are increasingly utilizing air routes—to transport fentanyl from places like Sinaloa and Mexico City and to airports located close to the US-Mexico border. Cases of fentanyl seizures at airports seem to suggest that the majority of fentanyl being trafficked within Mexico via air routes is in pill form.

In January 2018, members of Mexico’s Federal Police (Policía Federal – PF) and army (Secretaría de la Defensa Nacional – SEDENA) seized 1,500 fentanyl pills in the parcel area of the Tijuana International Airport, which has direct flights to Asia. The pills had allegedly been sent from Culiacán, Sinaloa.49 In March, authorities seized 300 fentanyl pills that were allegedly transported via parcel service from Mexico City to the Tijuana Airport.50

One of the reasons why criminal groups may be increasingly looking to transport fentanyl via air routes could be due to the small volumes of the drug that is trafficked compared to other drugs such as heroin and methamphetamine, which are usually shipped in greater quantities. Air routes are also quicker and, given the difficulty of inspecting thousands of packages that pass through airports on a daily basis, the risk of seizure is relatively limited. Finally, criminal groups of the type outlined below, have long trafficked illicit drugs through airports and therefore have both the contacts and the wherewithal to move fentanyl through these same spaces.

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Illicit Networks in Mexico

The data, interviews, and review of the case files has led us to two intertwining theses about who is responsible for the import, production, and transport of fentanyl to the United States via Mexico. Each of these is based on limited data, as well as fragmented and often anecdotal sources of information. Although it is our best current approximation of the major trends in this dynamic market, it is by no means definitive. Still, it provides us with a base from which to debate the evolution of this dangerous drug market, which could be a game changer for drug trafficking organizations worldwide.

Thesis 1: Mexico Umbrella Groups

There is a widespread consensus among all the US law enforcement officials interviewed for this report that the Jalisco Cartel New Generation (Cartel de Jalisco Nueva Generación - CJNG) and the Sinaloa Cartel in Mexico are the principal groups responsible for the import and production, and its transport to the United States. These two organizations can be considered umbrella groups: loosely knit networks with the contacts, infrastructure, and wherewithal to move poly-drug loads across the stretch of territory that represents the highest risk. This puts them in a unique position to control this portion of the distribution chain and thus secure a good amount of its profit.
A senior DEA Mexico source told InSight Crime that they believe “the big cartels— CJNG and Sinaloa—are trafficking in large amounts because they control big swathes of land. They got all the contacts in China. They’re running their methamphetamine all the way over into China and Japan. They’ve got all the contacts already and the power.” A separate DEA source told InSight Crime in an email that, “Since the cartels have well established routes of entry into the US especially with heroin and methamphetamine…the trend we’ve noticed is fentanyl has often been infused or comingled with heroin shipments bound for the Northeast coast of the US.” 51

Former drug agents concur. Mike Vigil, who worked for the DEA in Mexico for over a decade, said, “Sinaloa and Jalisco New Generation are the ones primarily involved because they control the ports and have a nexus with the Chinese. For example, the CJNG controls Lázaro Cárdenas and Manzanillo, and also Veracruz. The Sinaloa Cartel controls a larger amount of [other] ports.”52

For its part, the CJNG is a conglomeration of criminal organizations. The core of the group traces its lineage to the Valencia brothers, an entrepreneurial family that formed what was once known as the Milenio Cartel. The Milenio Cartel has long specialized in the import and transport of precursor chemicals to produce and transport methamphetamine. After being displaced in the mid-2000s from their nominal headquarters, Michoacán, the Valencia brothers started operating from Jalisco. There they teamed up with remnants of a group that had worked with Ignacio “Nacho” Coronel, another specialist in methamphetamine production who had long worked with the Sinaloa Cartel.

Since its emergence, the CJNG has arguably become Mexico’s largest criminal organization. Using a combination of aggressive military tactics against its rivals and a promise of less predatory criminal activities with the public, the group has spread to a half dozen Mexico states. Among their target areas are Tijuana, the principal entry point for fentanyl to the United States; Guerrero, a key heroin production point for white powder heroin; Colima, home to the Manzanillo port, and Michoacán, a methamphetamine production hub.

CJNG’s background in methamphetamine and strong presence in states such as Michoacán, Colima, and Guerrero make it particularly well placed to deal in fentanyl. Manzanillo and Lázaro Cárdenas ports are thought to be at least partially controlled by the CJNG or groups closely allied to it. Michoacán also gives the group access to a network of ready methamphetamine producers, which may give it an added advantage in this market. Guerrero gives it access to white powder heroin production, which it can use to mix with fentanyl and export to the United States.

Some security analysts and officials also believe that recent violence in Mexico might be due to TCO efforts to aggressively expand into the United States heroin market—evidenced by sharp increases in opium poppy cultivation in Mexico from 2014 to

51 InSight Crime email correspondence, DEA official, 26 July 2018.
52 InSight Crime interview, Mike Vigil, 27 April 2018.
2017—and their recent efforts to move synthetic opioids like fentanyl. Mexican TCOs have apparently innovated and changed their opioid production processes in the last few years to move away from the traditional black or brown heroin they provided to cities in the western United States, and towards the more potent white powder heroin that had found a market in the Eastern states, which is the type of heroin that can be cut with fentanyl.

Rivalries for markets and territory between the Sinaloa Cartel and CJNG have also been a major source of conflict and violence in Mexico in recent years, and some experts believe that the fentanyl market could be creating new battle lines. Since 2014, for instance, homicides have spiked in states such as Nayarit and Colima, two areas in dispute. In the small Pacific state of Nayarit, during the first six months of 2018, there was a 310 percent increase in homicides when compared to same time period in 2017. The small western Mexico state of Colima saw homicides rise by more than 900 percent in 2016, year on year. Security officials alleged that the catalyst of that violence was a feud between the Sinaloa Cartel, CJNG, and a faction of the Zetas for control of the Pacific port of Manzanillo.

CJNG is not monolithic. Currently, a splinter group of the CJNG known as the Nueva Plaza is battling the CJNG and Sinaloa in and around the Jalisco capital of Guadalajara for control over criminal economies. If it splinters, as other groups have, violence will likely worsen.

The fight, in part, stems from the fact that the Sinaloa Cartel—one of Mexico’s most storied criminal organizations—utilizes many of the same trafficking corridors along Mexico’s southwest border as CJNG. The Sinaloa Cartel also competes fiercely for these ports of entry and has established ties to Chinese precursor markets that produce methamphetamine as illustrated by the case of Zhenli Ye Gon, the accused methamphetamine producer who allegedly mislabeled the supplies that came through Mexican ports.

Born in the traditional epicenter of opium and marijuana production, the Sinaloa Cartel was originally a group of families famously led by Joaquin “El Chapo” Guzman, Ismael “El Mayo” Zambada and the Beltrán Leyva brothers, who combined forces from production point to market. Its tentacles reached deep into the security forces and

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54 Ibid.
political circles making it the most formidable criminal organization in the country, until the CJNG began cutting into its power base, and authorities arrested or killed many of its leaders.

The fight between the two organizations is considerable in Tijuana, the key crossing point for fentanyl and the place where the umbrella group thesis gets its most significant empirical legs. The concentration of seizures at the San Diego port of entry, along with the similar composition, make-up, and markings on these seizures, point to the control of a small number of organizations like Sinaloa and CJNG, law enforcement officials in San Diego told InSight Crime.

Further inland, US officials assert that the Sinaloa Cartel controls critical distribution hubs in Phoenix, Los Angeles, Denver, and Chicago. It is from these hubs that heroin and fentanyl get broken down for further distribution and transportation usually via the highway system. The DEA also notes, however, that both Mexican TCOs have started to utilize New Jersey as a transshipment point for heroin and fentanyl headed to Pittsburgh.

Some cases in the United States have even been traced back to the Sinaloa Cartel. In the Southern District of Ohio, for example, a federal grand jury charged 12 individuals in a narcotics and money laundering conspiracy that allegedly distributed fentanyl from Mexico in Middletown, Ohio and sent proceeds back to the Sinaloa Cartel in Mexico. And in the Northern District of the same state, 20 people were indicted—allegedly with links to the Sinaloa Cartel—for their role in a fentanyl, heroin, and cocaine trafficking enterprise. A third case involved a part of the Sinaloa Cartel tagged the Gil Organization, reportedly headed by Jose Ruben Gil, which allegedly “turned the City of Buffalo into ground zero for fentanyl/heroin trafficking in NY State; fuelling drug addiction, overdoses and violent crime.” (See Case Study 2 – Gil Organization)

However, the connections made between distributors in the United States and the Sinaloa Cartel are not elaborated on in these legal cases, and it is notable that the CJNG has yet to appear in a fentanyl-related indictment. Some Mexican officials told InSight

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59 InSight Crime interview, Appalachia health advocate, 18 June 2018.
Crime that this is related to the simplistic notions of how criminal organizations work in Mexico.

“Sure, we are all Sinaloa. Why not?” a high-ranking judicial official, who spoke to InSight Crime on condition of anonymity, quipped.

The official pointed to the example of El Chapo whose involvement in the day-to-day operations of his suppliers and distributors was minimal, and the fact that there were continuous and significant frictions with his alleged partners in the Sinaloa Cartel.\(^6\) This complexity is reflected in our second thesis.

**CASE STUDY – A Sinaloa Connection**

*Between June 2013 and August 2016, José Ruben Gil and his network moved poly-drug loads—including fentanyl—into the United States by passing them off as sea cucumber.*

*The cargo arrived from Mexico into San Diego and was then flown to Buffalo, where it was divided for distribution in various parts of New York,\(^6\) and, US authorities say, “turned the City of Buffalo into ground zero for fentanyl/heroin trafficking in NY State; fuelling drug addiction, overdoses and violent crime.”*

*Specifically, the indictment says that “the pallets bearing illegal narcotics were secreted in containers sealed with foam or spray insulation to avoid detection by law enforcement.” Sea cucumbers are not consumed in large quantities in the northeast United States, a red flag for investigators.*

*Still, for a while, passing off the drugs as sea cucumber minimized the risk of searches by border authorities, noted the Albuquerque Journal in a series of reports on the Sinaloa Cartel.\(^7\) “Each port has a limited budget to pay for ‘spoilage’ during unsuccessful drug searches, so without specific information or indicators of drugs in the load of seafood, the (frozen) loads get processed rapidly,” the report said.*

*The organization also set up four front companies—three in California (Triton Foods Inc, Kamora Investment Enterprises, Fresh Choice Produce), and one in the State of New York (Corral Seafoods LLC)—to conceal its trafficking activities. The structure used these*

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\(^6\) InSight Crime interview, high ranking official, Mexico’s Attorney General's Office, 2 June 2018.
US agents linked the network to the Sinaloa Cartel. Gil, a former mayor of the Izúcar de Matamoros town in Puebla, Mexico, had ties to the cartel, US authorities said.\(^69\) “The Sinaloa Cartel’s reach from Mexico into US cities is most evident in this investigation,” DEA Special Agent in Charge James J. Hunt said.

However, authorities gave no details of what this connection was and refer to the organization as the “Gil/Aguirre DTO” in the indictment in which seventeen individuals were charged,\(^70\) 15 of which had been convicted by December 2018.\(^71\)

A total of 8.5 kilograms of fentanyl were seized during the investigation, but authorities said the Gil network “trafficked thousands of kilograms of illegal narcotics, including heroin, fentanyl, and cocaine throughout the United States.”\(^72\)

The case demonstrated the agility of the larger Mexican drug trafficking networks. As the fentanyl market emerged, the alleged cartel affiliates could easily accommodate the drugs in their poly-drug loads.

**Thesis 2: Multi-layered Import, Production, and Transport Networks**

The reality of the Mexican underworld is that there is a plethora of smaller organizations that are subcontracted by the umbrella groups like the Sinaloa Cartel and the CJNG. These include remnants of organizations that once specialized in the import of precursors, and the production and export of methamphetamine, such as the Familia Michaocana or the Knights Templar.\(^73\) Parts of both of those organizations were

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subsumed by the CJNG and the Sinaloa Cartel or continue to operate independently, Mexican and US law enforcement told InSight Crime.

There were also parts of the larger umbrella groups that specialized in methamphetamine prior to the fentanyl boom, namely the aforementioned Nacho Coronel, who was a top member of the Sinaloa Cartel and was killed in a shootout with Mexican military in July 2010;\(^{74}\) and the Valencia brothers, who ran the Milenio Cartel and operated out of Michoacán prior to the emergence of the Familia Michoacana. Portions of both Nacho Coronel’s old organization and the Mileno Cartel are the core of the CJNG, but there are undoubtedly others who work primarily for the Sinaloa Cartel and others that remain independent.

The reconfiguration of these criminal groups is near constant. And while it is easy for crime analysts, law enforcement, and prosecutors to place them in large groups, the truth is that these are fluid relationships subject to a large number of changing variables. In fact, over the last several years, it is clear that the traditionally hierarchical drug trafficking organizations in Mexico have been replaced by flatter, more nimble organizations that are loosely networked. Within this framework, it is likely that Sinaloa and the CJNG outsource aspects of production and trafficking to smaller criminal groups.\(^{75}\) Sinaloa, in particular, is believed to operate with an increasingly horizontal structure in which local and regional gangs that specialize in particular operations are subcontracted for their services.\(^{76}\)

Which of these subcontractors service the fentanyl distribution chain is harder to say. At first glance, it would appear that there is an overlap between the fentanyl and methamphetamine markets. Mexican groups with longstanding ties to the Chinese precursor chemical industry would seem to have a distinct advantage in this market for three reasons. First, these groups understand and have connections to the precursor chemical market in China (and India). Second, these groups already have established networks to transport and offload precursor chemicals in Mexico, and to transport and process the chemicals in clandestine laboratories. Third, these groups have established infrastructure in Mexico that can produce fentanyl relatively easily, according to both US and Mexico law enforcement sources consulted for this report.\(^{77}\)

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\(^{76}\) Ibid.

\(^{77}\) Fentanyl can be illegally synthesized in the middle of urban centers or countryside labs. The first incident of illicit domestic production on US soil, for instance, were two labs discovered in Kansas’ largest city, Wichita, in 1991. Fifteen years later in 2006, authorities were able to trace back a wave of fentanyl overdoses that left more than 1,000 dead in the United States to a single clandestine lab in Toluca, Mexico. See: Chicago Tribune, “Drug lab shut down,” 6 June 2006. Available at: http://articles.chicagotribune.com/2006-06-06/news/0606060306_1_fentanyl-fatal-overdoses-drug-czar
As noted, there are numerous organizations with background in the importation of the chemicals needed to make methamphetamine and the production of that drug in Mexico that has likely helped them establish the contacts and knowledge base that makes a step into the fentanyl market the next logical one. What’s less clear is whether this step has been taken, and there is little publicly available information to make that determination.

Authorities seized a fentanyl lab in Mexico in Culiacán, Mexico, in 2017, but destroyed it before US officials could inspect it and no further information was provided. In September 2018, Mexican and US counterdrug authorities raided what they said was the first ever carfentanil/fentanyl laboratory in Baja California, arresting two suspected associates of the Sinaloa Cartel, including a Bulgarian biochemist. The small laboratory was allegedly producing counterfeit pills, which were being shipped to the US Northeast for sale; it did not appear to be producing methamphetamine or any other drugs. And in December 2018, the Attorney General’s Office said authorities made a third seizure of a lab in northwest Mexico City where they arrested four suspects and seized chemicals; no information was given about the capacity of the lab or its potential purveyors. These are the only known fentanyl drug laboratory seizures in Mexico.

Nonetheless, there is anecdotal evidence of a symbiotic relationship between methamphetamine and fentanyl amongst end-users. In some instances, law enforcement officials in the United States spoke of methamphetamine being a path to fentanyl. Other evidence points to users moving from fentanyl to methamphetamine, with opioid abuse evolving into methamphetamine use in some areas. In some of the states hit hardest by fentanyl, particularly Ohio and Kentucky, methamphetamine seizures and treatment admissions have more than doubled from 2014 to 2017 thus keeping pace with ascendant fentanyl markets in those states.

However, determining the exact network responsible for the movement of precursors and production of fentanyl in Mexico is difficult since there are so few seizures in Mexico of drug loads or labs containing fentanyl. Mixing fentanyl into any of these drug supply chains could happen at various junctures of the distribution chain by whomever has access to that particular supply of drugs. And since the poly-drug seizures at the US

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81 Substance Abuse & Mental Health Service Administration, “Treatment Episode Data Set.” Available at: http://wwdasis.samhsa.gov/webt/newmapv1.htm
border include heroin and methamphetamine, it is hard to know which legacy groups are responsible for fentanyl production.

To further complicate matters, transport networks may be subcontracted, according to Mexican law enforcement. They indicated that the Sinaloa Cartel and other major trafficking groups may be paying a fee to the traditionally powerful criminal operation in Tijuana, the Arellano Felix Organization, to use that smuggling corridor or their networks. For its part, the CJNG seems to have taken a more belligerent approach towards the same corridor.82 To a much lesser extent, what’s left of the Beltrán Leyva Organization (BLO) might also be involved through the formation of alliances with CJNG, Juarez Cartel, and remnants of the Zetas to move drugs across the border and maintain distribution points in Phoenix, Los Angeles, Chicago, and Atlanta.83

In general, Mexican authorities downplay the importance of fentanyl. Significantly, interviews with Mexico law enforcement suggest that fentanyl is still not a priority for the Federal Police or the Defense Secretary when it comes to seizing drugs and attacking major trafficking organizations. Neither do they believe that it is a major source of income or line of activity for Mexico’s criminal organizations.

A high-ranking official in the Federal Police described the income stream of the major Mexican criminal organizations as still primarily dominated by cocaine and heroin trafficking and a fast-shrinking marijuana business, while smaller, second tier organizations have grown more dependent on extortion and retailing. Another official in the Federal Police agreed with this assessment but warned that given the dynamic nature of illicit markets, the situation might change in the near future, as the fragmentation of the criminal organizations continues. Both officials and another high-ranking officer from Attorney General’s Office (Procuraduría General de la República – PGR) concurred.84

To be sure, the opioid market in Mexico is already going through a period of upheaval, which could be related to the surge in fentanyl and further illustrates the fragmented nature of these criminal organizations. Prices of opium gum, the sticky paste that is the source of heroin, have dropped considerably in recent months,85 enough that some producers are turning to marijuana.86 One theory of the drop is that criminal groups are shifting to fentanyl,87 but any conclusions would be premature. There has been a four-
fold rise in poppy production since 2013, according to DEA estimates,\textsuperscript{88} which could account for a similar drop in opium gum prices.\textsuperscript{89} In the oversupplied market, buyers may be squeezing suppliers, which again, suggests a much more atomized market with multiple tiers than single-tiered, monolithic groups controlling the entire value chain. The era of the all-controlling cartel may be at an end.

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**CASE STUDY – A Mexicali Fentanyl Production Facility**

In January 2018, US authorities began investigating a Bulgarian biochemist named Antov Petrov Kulkin who was allegedly running a small carfentanil/fentanyl laboratory in Mexico. Working undercover, multiple US counterdrug agents in New England, California, Santo Domingo, and Tijuana began interacting with the network. Eventually, they conducted confidential undercover source meetings in Santo Domingo and Tijuana, and undercover pill purchases in California.

The investigations led to seizures in California and uncovered connections between Kulkin’s network and the Sinaloa Cartel, including strains of other Sinaloa-related distribution networks operating in the United States. In August 2018, US counterdrug agents, working with Mexican authorities, developed a strategy to arrest Kulkin in Mexico, as well as other parts of his distribution network in Massachusetts.

In September 2018, after locating his apartment in Mexicali, Mexican authorities arrested Ivan Arredondo-Ramirez who tried to bribe his way to freedom before being taken into custody. Arredondo-Ramirez later admitted to being Kulkin’s boss. Soon after, authorities arrested Kulkin and found the carfentanil/fentanyl laboratory. There they seized as much as 20,000 counterfeit pills and a pill press, among other items, which Arredondo-Ramirez and Kulkin allegedly used to produce counterfeit pills, which they sold in the US.

The case illustrates two important aspects of the fentanyl trade. First, that networks can be small, subsets of larger criminal organizations. Second, that these small subsets—operating in relatively small labs—can feed large markets.

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\textsuperscript{89} Mark Stevenson, “Mexico opium poppy growers see price drop, turn to marijuana,” Associated Press, 22 June 2018. Available at: https://www.apnews.com/cb4dac96eb24420697416c68ad92105e
Part III – Fentanyl - The Destination

This section covers the different ways in which fentanyl arrives to the United States for consumption. Though there’s a lack of clarity in determining how much of which fentanyl-family product is exported the most and which route it takes, related data seems to illustrate that fentanyl coming via Mexico is surging but that Mexican criminal groups play a limited role at the distribution level in areas where fentanyl is most prevalent. Instead, they seem to rely on Dominican networks, who have long dominated the heroin market in the northeast. In addition, pure fentanyl and fentanyl analogues, as a powder or in pill form, are also being sent from China directly to the United States via mail or to Canada, a transshipment point for small quantities of the drug. Given the speed with which the synthetic opioid market is maturing, this second form of trafficking may represent a far greater medium- and long-term threat.

Scope and Geography of the Problem

It is important to begin this section by declaring that there are no reliable estimates for illicit fentanyl use in the United States. This is related to the newness of the drug, as well as wide disparities of training of drug agents, sniffing dogs, medical professionals and others who deal with fentanyl. It is difficult to detect because it comes in small quantities, and is often camouflaged in other drugs. US law enforcement and health professionals are only beginning to see the signs on both the seizure side and the overdose side, the two data points most important to determining the scope of the problem.

That said, conversations with officials across all branches of the US government indicate that fentanyl misuse, either purposeful or not, is larger than what current estimates would suggest. This assertion is backed up by overdose data that indicates drastic increases in synthetic opioid-related deaths, a category dominated by fentanyl, as well non-fatal overdoses. Since 2014, emergency department non-fatal overdose visit data suggests increases related to fentanyl in the past few years, and rising rates of fentanyl-family substance seizure samples nationwide similarly suggest a growing market. Additionally, in interviews with public health officials and advocates, it was suggested that the potential size of the fentanyl market could be an increasingly significant portion of the 2.1 million people with opioid use disorders given the nature of addiction as a disease and market saturation of fentanyl in certain regions of the country.

The current fentanyl epidemic is largely concentrated in regions of the country where white powder heroin and prescription pill misuse dominates the market—Appalachia and the Northeast. In a 2016 CDC study, for instance, Northeastern states reported the highest percentage of opioid overdose deaths involving fentanyl, ranging from 60–90 percent of all opioid overdose deaths; midwestern states also exhibited high percentages of opioid overdose deaths involving fentanyl. In many of these states, deaths from fentanyl alone have started to outnumber deaths from fentanyl cut into

other substances, potentially suggesting a unique fentanyl and fentanyl analogue market.94 95 These regions of the country have similarly seen the largest increases in non-fatal opioid-related emergency department visits96 and fentanyl seizures.97

Distribution Networks in the United States

Once fentanyl crosses the US-Mexico border, it typically moves inland to a distribution center where it is packaged and shipped via truck or private vehicle to the markets in Appalachia and the East Coast.98 US law enforcement sources said that Mexican TCOs control the fentanyl as it moves within the United States and exert control over the distribution in larger cities—though there are critical exceptions to that rule. US indictments corroborate this sentiment, despite the complexities of the Mexican market outlined above.

The most critical exceptions to this rule happen in the Northeastern United States. In Massachusetts and Connecticut, the epicenter of the US fentanyl epidemic, Dominican TCOs serve as mid-level distributors for cocaine and white powder heroin, which is the type of heroin cut with fentanyl. Dominican TCOs obtain multi-hundred kilogram quantities of heroin, heroin cut with fentanyl, and cocaine from Mexican wholesalers in New York City and other hubs, which they then sell in increments to local street gang clients for local street sales.99 DEA sources in Mexico also told InSight Crime that Dominican TCOs go to the US-Mexico border and have even traveled to Mexico to get the fentanyl.

In Appalachia, the local-level distribution is a little more diffuse. Interviews with local law enforcement in Hamilton County and Kentucky indicate that Mexican-sourced heroin, cocaine, and methamphetamine cut with fentanyl, as well as fentanyl in powder and pill form, typically comes in from Chicago and then spreads to cities like Toledo,

95 Centers for Disease Control and Prevention, “Overdose Deaths Related to Fentanyl and Its Analogs: Ohio, January–February 2017,” September 2017. Available at: http://dx.doi.org/10.15585/mmwr.mm6634a3
Columbus, Cincinnati, and south to West Virginia. In smaller Appalachian communities, local drug peddling organizations tend to be composed of family units. They obtain fentanyl in small quantities from Mexican nationals in larger cities, bring it back to their communities, and then rely on people with substance use disorders for local street sales. These smaller, family-run distribution networks typically do not target their sales; whatever they are supplied with will inevitably find a market, though there’s evidence to suggest that they target communities with pill problems when they sell counterfeit pills with fentanyl.

The DEA also believes that criminal groups have moved beyond cutting white powder heroin with fentanyl. These days it is increasingly more common for fentanyl to be mixed with adulterants and sold as heroin, with no heroin present in the product. This observation is backed up by the NFLIS data which shows fentanyl-only exhibits far outstripped heroin cut with fentanyl exhibits in 2016.

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100 InSight Crime interview, Ohio law enforcement official, 11 July 2018.
101 InSight Crime interview, Kentucky law enforcement official, 16 July 2018.
102 Ibid.
103 Ibid.
Interviews with local law enforcement and public health officials in these regions suggest that fentanyl-family substances have become a dominant and unique substance in local opioid markets, and that criminal groups are also strategically cutting it into ascendant local prescription pill, cocaine, and methamphetamine markets to create a larger opioid and fentanyl dependent population.\textsuperscript{105} \textsuperscript{106} According to Dr. Nora Volkow, the Director of the National Institute of Drug Abuse, “Fentanyl is being used to lace a wide variety of drugs, including marijuana, and because of the [high] addictiveness of...something like fentanyl, you will rapidly become dependent on that drug. And then

\textsuperscript{105} InSight Crime interview, Pittsburgh treatment provider, 7 June 2018.
that leads you to crave it, even though you don’t know it is the opioid, you’ll crave the
drug you had that sensation with.”\textsuperscript{107}

This view is echoed by a local law enforcement official in Hamilton County, Ohio. “Half
of the methamphetamine and crack cocaine overdoses [in Hamilton County] have had
fentanyl in them,” the official said. “Synthetic opiates are the money-makers for most of
the cartels since it is what most people are addicted to and you can hit different
demographics by starting to mix fentanyl with cocaine and methamphetamine.”\textsuperscript{108}

Notably, according to the 2018 National Drug Threat Assessment, it is the criminal
wholesalers in the US, and not Mexico, who appear to be lacing the drugs in the US with
fentanyl. “Although fentanyl is often seized as a part of poly-drug loads (generally
cocaine, heroin, and methamphetamine), fentanyl mixtures with other illicit drugs are
very uncommon at the wholesale level,” the DEA wrote. “This indicates the mixing of
fentanyl with other illicit drugs is most frequently done inside the United States and is
not representative of any definitive Mexican TCO strategy.”

It is also important to note that Mexico-sourced fentanyl does not dominate the market
in Appalachia, and likely not in the Northeast. Interviews with law enforcement in
Appalachia suggested what is likely a fairly evenly split local market between fentanyl
brought in via mail and Mexican-sourced fentanyl.\textsuperscript{109} \textsuperscript{110} It is likely a similar situation in
the Northeast.

Still, the Mexican TCOs are hoping to use fentanyl to further capitalize on widespread
opioid addiction in the United States.\textsuperscript{111} This is clearest in its increasing production and
distribution of counterfeit pills, but they are also undoubtedly aware of the potential of
using fentanyl as an additive for other drugs as well. Given the potency and highly
addictive nature of fentanyl, studies and testimony from people with opioid use
disorders indicate that over time people are willing to take fentanyl or actively seek
it out,\textsuperscript{112} and that they seek to counteract it is lethality by controlling their dosage or
consuming it in groups where there might be naloxone present.\textsuperscript{113}

\textsuperscript{107} Dan Goldberg, “Evolving Opioid Epidemic Poses Challenge for Public Health Officials;,” Politico, 17
July 2018. Available at: https://www.politico.com/story/2018/07/17/opioid-epidemic-challenge-pro-
summit-725976
\textsuperscript{108} InSight Crime interview, Ohio law enforcement official, 11 July 2018.
\textsuperscript{109} InSight Crime interview, Ohio law enforcement official, 11 July 2018.
\textsuperscript{110} InSight Crime interview, Kentucky law enforcement official, 11 July 2018.
\textsuperscript{112} InSight Crime interview, Vancouver public health official, 6 July 2018.
\textsuperscript{113} Terry DeMio, “Fentanyl deaths up 1,000% since 2013, so much so that even heroin’s supply is
dwarfed,” The Cincinnati Enquirer, 7 June 2018. See:
https://www.cincinnati.com/story/news/2018/06/06/opioid-fentanyl-dwarfs-heroin-cincinnati-
drug-supply-killing-more/610804002/
\textsuperscript{114} InSight Crime interview, Vancouver public health official, 6 July 2018.
CASE STUDY – A Dominican Connection

On October 22, 2018, authorities pulled over a Dominican national identifying himself as Angel Javier Morell-Oneill as he drove in Methuen, Massachusetts. They had been investigating him since June 2018, according to a Justice Department press release.\(^{115}\) They searched his car and found two kilograms of fentanyl in the passenger seat.

Authorities also executed a warrant to search his apartment on Pleasant Valley Street, Methuen, where they found another 30 kilograms of fentanyl, most of it wrapped in one kilogram-sized packages and hidden throughout the apartment. The drugs, the Justice Department said, were worth an estimated $29 million. In addition, they found a 9mm Millennium G2 handgun, ammunition, and a gas mask.

While surveilling the apartment, authorities also observed and arrested José Rodríguez, when he arrived with $20,000—what US prosecutors say was “half of the transportation costs of a narcotics shipment” to Morell-Oneill.

The pair are part of a slew of Dominican nationals who are spread throughout the Northeast, increasingly in small towns like Methuen, population 50,000, and Lawrence, population 80,000, which one DEA officer described as the “epicenter” of fentanyl distribution where Dominicans come in using false IDs as Morell-Oneill did. “They own the land,” the officer told InSight Crime of the Dominicans.

The officer said the Dominican networks use a rudimentary process—magic bullet blenders, an industrial strength air purifier, and a “narcan”\(^{116}\)—to lace heroin with fentanyl or simply eliminate the heroin altogether, since the fentanyl is so strong. “Pretty soon, you will stop hearing about heroin,” he said. “They’re never going back to heroin.”

A kilo of fentanyl can yield as much as $1.3 million, while a kilo of heroin might yield $75,000, the agent said. Given the profit margins, Mexican organizations may be moving into the wholesale business in the Northeast, both the DEA and US prosecutors say.

Authorities are worried that a violent power struggle has already begun. “We know who is going to win that fight,” a US prosecutor said, referring to the firepower of the Mexican groups.

### Maritime Fentanyl Trafficking in the United States

A vast majority of the fentanyl seized by Customs and Border Patrol is seized at ports of entry on the Southwest border and international mail service centers. In fact, less


\(^{116}\) A common substitute name for naloxone, which is used to counteract the effects of an opioid overdose.
than one percent of the fentanyl seizures made between 2016 and 2017 by CBP involved a transport method other than mail or traditional land trafficking transport methods.\footnote{United States Senate Committee on Homeland Security and Governmental Affairs, Minority Staff Report, “Combatting the Opioid Epidemic: Intercepting Illicit Opioids at Ports of Entry,” 10 May 2018. Available at: \url{https://www.hsgac.senate.gov/imo/media/doc/Combating%20the%20Opioid%20Epidemic%20-%20Intercepting%20Illicit%20Opioids%20at%20Ports%20of%20Entry%20-%20Final.pdf}} Of the hundreds of seizures made in 2016 and 2017, only seven fentanyl seizures were made at ports of entry that were not on the southwest border or at international mail facilities.\footnote{Ibid.}

Despite the low seizure count, it is likely that maritime trafficking of fentanyl directly into the United States is a transport method that’s utilized—though probably at far lower rates than mail or land ports of entry on the Southwest border. For example, in June 2018, Customs and Border Protection officials seized 110 pounds of fentanyl at the Port of Philadelphia.\footnote{US Customs and Border Protection, “Philadelphia CBP Seizes Nearly $1.7 Million in Fentanyl Shipped from China,” 28 June 2018. Available: \url{https://www.cbp.gov/newsroom/local-media-release/philadelphia-cbp-seizes-nearly-17-million-fentanyl-shipped-china}} The fentanyl was discovered by a CBP narcotics detector dog in a shipment of iron oxide that arrived from China.\footnote{Ibid.}

This is the only instance of maritime fentanyl trafficking found by InSight Crime, though given how it recent it was, it could indicate efforts by Chinese groups to move fentanyl in larger quantities directly into the United States. What’s more, authorities consulted about this seizure could not say whether it was an anomaly or the norm.

**Postal Services and the Dark Web**

The current fentanyl overdose epidemic in the United States has also introduced a novel method for the trafficking of illicit substances: directly to the consumer via mail after an online or dark web purchase. Thousands of Americans are purchasing small quantities of fentanyl, precursors, and analogues online\footnote{US Drug Enforcement Administration, “2017 National Drug Threat Assessment,” October 2017. Available at: \url{https://www.dea.gov/docs/DIR-040-17_2017-NDTA.pdf}} and having them sent directly to their homes via mail for personal consumption or distribution among a close circle of acquaintances.\footnote{InSight Crime interview, US government official, 5 June 2018.} \footnote{InSight Crime interview, Kentucky law enforcement official, 17 July 2018.}

Furthermore, recent indictments cited in Part I suggest that Chinese nationals have set up regional distribution networks in the United States that are responsible for broader distribution of fentanyl and fentanyl analogues sent via mail, then negotiated and moved via the dark web on the domestic level.\footnote{US Department of Justice, “Justice Department announces indictments against Chinese manufacturers of fentanyl and other opiate Substances,” 17 October 2017. Available at:} Finally, there’s also some evidence of

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fentanyl and precursors getting sent to individuals near the Southwest border, brought into Mexico to be cut into the heroin, cocaine, and methamphetamine supply chain, and then brought back to the United States, though it is unclear how pervasive this is.125

In sum, fentanyl trafficked to the US directly from China is significant, and there is still no consensus on whether land-based or postal fentanyl is responsible for the bulk of the fentanyl consumed in the US. Local law enforcement in Ohio and Kentucky, for example, told InSight Crime that fentanyl trafficked via mail might be just as significant a portion of their local fentanyl supply as fentanyl trafficked via the southwest border via Mexico.126 127 For its part, the US-China Economic and Security Review Commission, in its November 2018, report, stated simply: “China remains the largest source of illicit fentanyl and fentanyl-like substances in the United States.”128

However, federal authorities in San Diego and New Hampshire contradicted this assessment.129 Indeed, numerous government officials and counterdrug agents throughout the region,130 as well as prominent public health advocates, have also said Mexican groups are behind the bulk of the fentanyl arriving to the US.131

Part of the debate stems from data collection. Although trafficked in smaller quantities, fentanyl delivered via mail from China is largely already in powder form132 and averages 90 percent purity, thus making it far more potent and likely more profitable than fentanyl brought across the southwest border, which has an average of 7 percent purity.133 Nonetheless, seizure data does not reflect this massive difference in purity; instead, CBP measures them as if they were equal, law enforcement officials told InSight Crime.

In either case, Chinese online sellers of fentanyl explicitly prefer shipping via express mail services, which are largely governed by the postal administration and include the
United States Postal Service and China Post. This preference is for two prominent reasons: the United States Postal Service handles four times the amount of incoming mail than do express consignment carriers like DHS, FedEx, or UPS combined; and the United States Postal Service is not yet able to obtain advanced electronic data on all incoming packages, which makes detection of illicit substances far more difficult.

Customs and Border Protection seizure data confirms this preference. Fentanyl seizures from USPS packages far outpace seizures from express consignment carriers, although the total weight of seizures on express consignment carriers was twice that of express mail. This suggests that larger fentanyl mail shipments might be sent through consignment carriers like DHS, FedEx, and UPS.

Interviews and testimony from federal government officials indicate that the trafficking of fentanyl via mail could represent “the future of the drug problem in America,” and the democratization of drug trafficking. It is the opinion of some that the current fentanyl epidemic could be a watershed moment where the hierarchical drug trafficking organizations that have traditionally dominated the drug trade may no longer have a monopoly on the supply of illicit drugs.

In some respects, fentanyl is like the computer microchip market. There is the potential of producers to create smaller and smaller analogues, reducing the need to use large criminal infrastructures to ship the product to its consumers. This is already happening: Carfentanil, a fentanyl analogue, is an estimated 100 times more potent than fentanyl, and has been detected in places as disparate as San Diego and New Hampshire. Reports of carfentanil have also risen from none in 2015, to over 6,000 incident reports in 2017.

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135 Ibid.


138 Ibid.

139 InSight Crime interviews, San Diego and New Hampshire federal authorities, July 2018.

Recommendations

1. **Pressure Mexico to put fentanyl higher on the agenda.** Fentanyl is not a priority for law enforcement in Mexico, and there is little indication that this will change in the near future. When approached, Mexico’s federal forces told InSight Crime that fentanyl was not a priority and that they did not believe it was a significant part of Mexican TCO’s criminal portfolios. The issue is long-term: fentanyl may be just the first of many synthetic drug scourges to come.

2. Specifically, to help combat the trafficking of fentanyl and its analogues, Mexico could: **increase capacity** to detect and test for fentanyl and its analogues at its laboratories and where it seizes drugs; **beef up detection** at its ports for fentanyl and precursors; and **open the door** to inspections of seized laboratories and chemicals.

3. **Pressure China** to participate more actively in criminal investigations to deter Chinese producers and exporters, and actively update precursor watchlists and prohibitions. As the President’s Commission on Combatting Drug Addiction and the Opioid Crisis wrote, “We are losing this fight predominately through China. This must become a top tier diplomatic issue with the Chinese; American lives are at stake and it threatens our national security.”

4. **Invest in research and data collection** to better understand this drug trafficking phenomenon. In many ways, fentanyl represents the democratization of drug trafficking, offering small and large groups myriad ways of exploiting markets. However, the data on production, trafficking, and consumption is sparse at best.

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Annex I - Organizations

InSight Crime is a foundation dedicated to the study of the principal threat to national and citizen security in Latin America and the Caribbean: organized crime.

We fulfill this mission by:

• providing high quality and timely analysis of news events linked to organized crime in the region;
• investigating and writing reports on organized crime and its multiple manifestations, including its impact on human rights, governance, drug policy and other social, economic and political issues;
• giving workshops to journalists, academics and non-governmental organizations on how to cover this important issue and keep themselves, their sources and their material safe;
• supporting local investigators through these workshops and by publishing, translating and promoting their work to reach the widest possible audience;
• developing a region-wide network of investigators looking at organized crime;
• presenting in public and closed-door sessions to governments, non-governmental organizations, academics and stakeholders on best practices, strategies and pitfalls in implementing citizen security policy on the ground.

Learn more about InSight Crime here.
The Woodrow Wilson International Center for Scholars - The Mexico Institute

The Mexico Institute seeks to improve understanding, communication, and cooperation between Mexico and the United States by promoting original research, encouraging public discussion, and proposing policy options for enhancing the bilateral relationship. A binational Advisory Board, chaired by Luis Téllez Kuenzler and Earl A. Wayne, oversees the work of the Mexico Institute.

The Institute maintains an ongoing focus on five key issues in US-Mexico relations:

- Security and the Rule of Law
- Economics and Competitiveness
- Migration and Migrants
- Border Issues
- Energy
Annex II – Investigative Team

Steven Dudley is the co-director and co-founder of InSight Crime. Dudley is also senior fellow at American University’s Center for Latin American and Latino Studies in Washington, DC, and in 2012 – 2013, he was a visiting fellow at the Woodrow Wilson International Center for Scholars. He directed the project, including helping research, write, and edit the final report.

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