

From China White to Breaking Bad: The Rand Report on Fentanyl In America



By Chuck Dinerstein, MD, MBA — September 2, 2019



A lethal dose of fentanyl Courtesy of the DEA [1]

The Rand Corporation just released their study on the opioid crisis. Everything that follows our their words, gently edited and slightly rearranged. No facts or conclusions were harmed in this production.

There were on the order of 50,000 opioid-involved over-dose fatalities in 2018, which is roughly similar to the magnitude of deaths from HIV/AIDS at its peak in 1995.

The first wave was prescription opioids, the second wave was heroin, and the third—and ongoing—wave is synthetic opioids. ... analyses of death certificate records show that most synthetic opioid overdoses as of 2016 involve fentanyl.

Fentanyl and Other Synthetic Opioids Are Becoming Dominant in Some Parts of the United States and Canada, but Remain Less Common in Other Parts of These Countries

Our analysis shows that synthetic opioid overdoses increased dramatically between 2013 and 2017 but remained concentrated regionally, notably in Appalachia, the Mid Atlantic, and New England in the United States

...in some markets, fentanyl is replacing—not just adulterating or supplementing—heroin

... some markets appear to be diversifying from fentanyl to a broader variety of new synthetic opioids.

... Some regions have been acutely affected; others have been spared to date, at least in relative

terms... In 2017, ten states accounted for one-third of all mentions of synthetic opioid overdoses, despite making up a little more than one-tenth of the nation's population. ... That potent synthetic opioids now appear in counterfeit prescription medications is another concern. ...Furthermore, fentanyl is not the most potent or deadly of the synthetic opioids. In 2017, Ohio and British Columbia saw a surge in deaths associated with carfentanil.

...One key question is whether synthetic opioids will remain concentrated geographically or whether the hardest-hit states are bellwethers for what the nation as a whole might be confronting soon.

A Confluence of Factors, ... Helps Explain the Surge in Synthetic Opioids

The most obvious explanation for why fentanyl and other synthetic opioids entered illicit markets has its roots in the United States' immense demand for opioids. Americans consume far more opioids for medical purposes than do citizens of any other country (both in absolute and per capita terms), and, traditionally, American consumption of illegal opioids (primarily heroin) has been substantial

...Rather than pointing to an increased demand for opioids ...a confluence of supply-side factors likely helps explain fentanyl's rise since 2013.

...Drug Trafficking Organizations are profit-maximizing businesses

... [The] low cost of synthetic opioids, especially relative to their morphine equivalence, makes them attractive alternatives to traditional illicit opioids, such as poppy-based heroin

... the very high potency-to-weight ratio of fentanyl and other synthetic opioids makes them easier to conceal and smuggle. ... Fentanyl's potency is such that a small quantity can be easily shipped directly to buyers halfway around the world for a modest fee ...A 1-kg parcel [equivalent in potency to 25-kg of heroin, can be shipped from China to the United States for as little as \$10 through the international postal system.

Both of these factors ...reduce their risks and the costs of doing business. Yet, these considerations were always present, and so by themselves cannot explain the sudden arrival of synthetic opioids in several drug markets around the world, starting around 2013.

...Drug suppliers might turn to new products, such as synthetic opioids, as a response to constraints in their traditional supply chains brought on by poppy blights, crop eradication, or restrictions on their ability to access prescription opioids commonly diverted from loosely regulated pill mills or pharmacies.

...production is based in China or Mexico, not in the United States. China's economy has grown at levels that outpace regulatory oversight (particularly its pharmaceutical and chemical industries), allowing suppliers to avoid regulatory scrutiny and U.S. law enforcement

... innovations that enhance online privacy (e.g., BitCoin, anonymous browsing) aid online trade in contraband. ...thereby connecting low-level wholesale dealers to international producers in ways that bypass traditional drug distribution networks.

Much Can Be Learned From Other Countries' Experiences with Synthetic Opioids

Problems generated by synthetic opioids are not unique to North America...

...international variation is not dissimilar from differences observed among individual U.S. states, some of which have been dominated by fentanyl (New Hampshire), by fentanyl analogs (Ohio), by a mix of fentanyl and heroin (Kentucky), or mostly by heroin (California). It would be inaccurate to speak of a homogeneous U.S. synthetic opioid problem.

Supplier Decisions, Not User Demand, Drive the Transition to Fentanyl

The history of drug use and drug problems has been marked by a sequence of epidemics, but the synthetic opioid problem is different.

... Fentanyl and other synthetic opioids are not a drug of initiation for most individuals, at least in markets in the United States. Its use typically does not spread by word-of-mouth contact among users; it penetrates markets when suppliers embrace it. It appears that few opioid users are looking for fentanyl and other synthetic opioids specifically ... Thus, the traditional epidemic framework largely fails to capture the dynamics of the problem.

...Whereas previous epidemics often were spurred by growing demand, the transition to fentanyl and other synthetic opioids appears to be a supplier-led phenomenon. ... synthetic opioids are best thought of as a new strategic device for dealers seeking to lower costs or skirt drug control laws, not as a newly popular drug among users.

Fentanyl's Spread Is Episodically Fast and Has Ratchet- Like Persistence

Once fentanyl gains a foothold, it appears capable of sweeping through a market very quickly. ... Furthermore, we know of no instance in which fentanyl attained a dominant position in the marketplace and then lost that position to another less potent opioid. To date, fentanyl's spread appears to be a one-way ratchet.

Synthetic Opioids Drive-Up Deaths Rather Than the Number of Users

... the dynamics of fentanyl use seem different from those of a prototypical drug epidemic. Fentanyl and other synthetic opioids do not generate a wave of drug initiation among youth or even necessarily stimulate greater demand more generally... it appears to spread primarily among existing users when suppliers substitute fentanyl for another drug (to date, another opioid). This triggers a wave of deaths mostly by increasing lethality (deaths per person-year of use), rather than by increasing the number of users

...fentanyl brought a wave of greater death and not a rising tide of more users.

...Traditional approaches aimed at drug epidemics focus on preventing initiation, raising prices, and increasing treatment to suppress demand, but these efforts will not immediately reduce overdose deaths in areas that are already drowning in synthetic opioids. In these areas, reducing deaths quickly will require having conversations about interventions intended to reduce the risk of drug overdose

... A focus on reducing deaths and nonfatal synthetic opioid poisonings does not mean that

jurisdictions need to abandon traditional approaches.

Improving Surveillance and Monitoring Is Crucial

... The HIV/AIDS crisis prompted large-scale investments in new data and monitoring systems, such as the National HIV Behavioral Surveillance system. Opioid-involved deaths are now roughly similar in magnitude to deaths during the peak of the HIV/AIDS epidemic, but these deaths have not elicited any comparable investment in data infrastructure.

The general lack of longitudinal data on people who use heroin and fentanyl creates problems for those trying to estimate the full cost of the crisis (e.g., understanding nonfatal overdoses), evaluate policy responses, and incorporate justifiable parameters into simulation models.

Limiting Policy Responses to Existing Approaches Seems Unlikely to Reverse This Tide

The first pillar is *supply control*, ranging from poppy eradication and substitution to interdiction and domestic law enforcement against drug dealers or those who improperly dispense prescription medications. U.S. drug policy for decades was heavily focused, both in budgetary and substantive terms, on supply-reduction efforts. Collectively, these expensive efforts keep prices high (the common drugs sell for much more than their weight in gold), but they rarely create physical scarcity. High prices are a mixed blessing. They can hold down substance use disorders, but they also enrich dealers while impoverishing those with substance use disorders, some of whom commit crimes to finance drug purchase.

...The transition to fentanyl and other synthetic opioids is driven by suppliers, so it makes sense to consider supply reduction as one piece of a comprehensive effort.

...There is little reason to believe that tougher sentences, including drug-induced homicide laws, for low-level retailers and easily replaceable functionaries (e.g., couriers) will make a positive difference.

There is also little reason to believe that synthetic opioid production, which occurs mostly in China, could be curtailed in the short-run (Pardo, Kilmer, and Huang, 2019). ... Targeting importers and wholesalers of nearly pure fentanyl from China is very different from punishing street-level retailers

...

...Other law enforcement efforts aimed at tracing the source of import through cyber investigations might be warranted in an era in which drugs can be transacted online without involving traditional organized criminal elements.

The second pillar, *prevention*, is broadly esteemed despite its mediocre performance when evaluated rigorously. If you give 100 youths who would otherwise have used drugs the best available prevention programming, most will still go on to use drugs. Altering the paths of the minority who do respond can well justify the investment. ...

...knowing that treatment should be expanded should not be conflated with knowing how to solve the problem.

The third pillar, *treatment*, for those who have developed an OUD [opioid use disorder], has the strongest evidence base, particularly for methadone and other forms of medication treatment.

Medication treatment can stabilize people's lives; reduce cravings associated with addiction, reduce overdose and the spread of HIV and other infectious diseases; and facilitate access to other social services

...It is also a long-term endeavor and is often punctuated by recurrence of street drug use. It is not something with a dependably favorable short-term outcome... Furthermore, many who meet the medical definition of "needing" treatment do not seek it, some who want it cannot find it, and many who begin treatment drop out.

Recognizing the inevitability of continued use by some of those who enter treatment, by those who do not want or cannot access treatment, many developed countries also embrace *harm-reduction* programs that make continued use safer and less damaging to people who use drugs and those around them.

Our overarching message is that this crisis is different and its successful resolution will require new thinking. Prior beliefs about various drug policies might be less applicable to the current crisis. Indeed, it could be that resolution of this crisis requires approaches or technologies that do not exist today. Limiting responses to small tweaks on existing approaches in the United States will likely be insufficient and may condemn many people to early deaths.

Source: [The Future of Fentanyl and other Synthetic Opioids](#) ^[2]Rand Corporation This is a 250-page report available as a free downloadable pdf.

COPYRIGHT © 1978-2016 BY THE AMERICAN COUNCIL ON SCIENCE AND HEALTH

Source URL: <https://www.acsh.org/news/2019/09/02/china-white-breaking-bad-rand-report-fentanyl-america-14257>

Links

[1] https://upload.wikimedia.org/wikipedia/commons/5/53/Fentanyl._2_mg._A_lethal_dose_in_most_people.jpg

[2] https://www.rand.org/pubs/research_reports/RR3117.html