

# The Fentanyl Threat

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*What Prevention Professionals Need to Know  
-Lessons Learned from SOD Operations*



UNCLASSIFIED

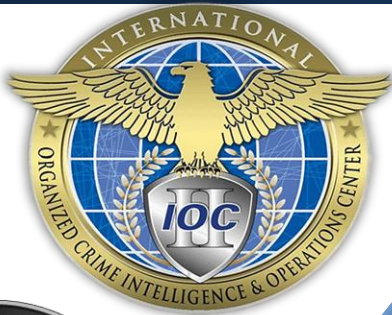
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# Kati's Story

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# SOD Sections



# OSI Mission

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- ❖ **Diversion Investigations**
- ❖ **Internet investigations; Not “Cyber-crime”**
- ❖ **Pre-cursor Targeting Program**
- ❖ **Heroin/Fentanyl Task Force (HFTF)**

*OSI = Opioids, Synthetics, Internet*

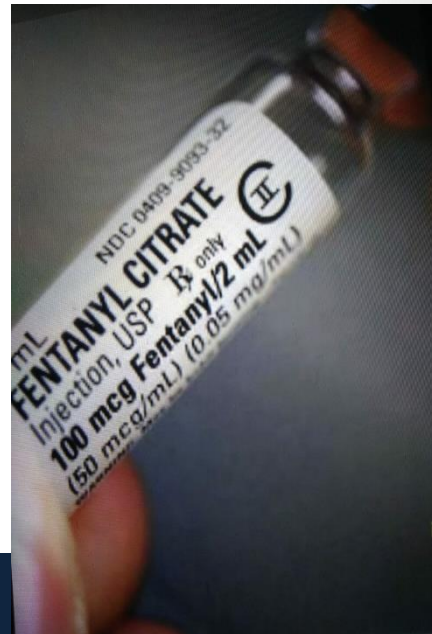


# OSI: Participating Agencies



# What is Fentanyl?

- Schedule II synthetic opioid; Severe Pain reliever
- Quick onset, short duration
- DEA: Approx 30 fentanyl-related substances
- Pharmaceutical grade vs. clandestine production, or
- Legal vs. illegal



**Cephalon/Teva** – Actiq (Fentanyl Lollipop)  
Janssen (Johnson and Johnson) – Duragesic (Fentanyl Patch)  
Cephalon/Teva – Fentora (Fentanyl Sublingual Tablet)  
Akorn Pharma – Sublimaze (Fentanyl Injection)  
**Insys Therapeutics** – Subsys (Fentanyl Oral Spray)  
Sentynl Therapeutics – Abstral (Fentanyl Sublingual Tablet)  
Mylan Pharmaceutical – Fentanyl Patch (Generic Fentanyl Patch)

# Definitions

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Schedule II: Approved medical use and high abuse potential

Opiates: Derived from opium poppy (heroin, morphine)

Opioids: Proper term includes opiates and other synthetic substances that affect opioid receptors

NPS: New Psychoactive Substances includes synthetic opioids, cannabinoids, etc

Analogs: class of chemicals with similar base structures

Derivative: chemical made from another similar chemical (opiates from poppy)

Fentanyl-related compounds: recommended term to describe the fentanyl “family”



# What Does Fentanyl Look Like?

## Tablets/Pills



## Powder



## Liquid





Or something else!



When did it begin?

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PRINCE

1958-2016



# It affects us all

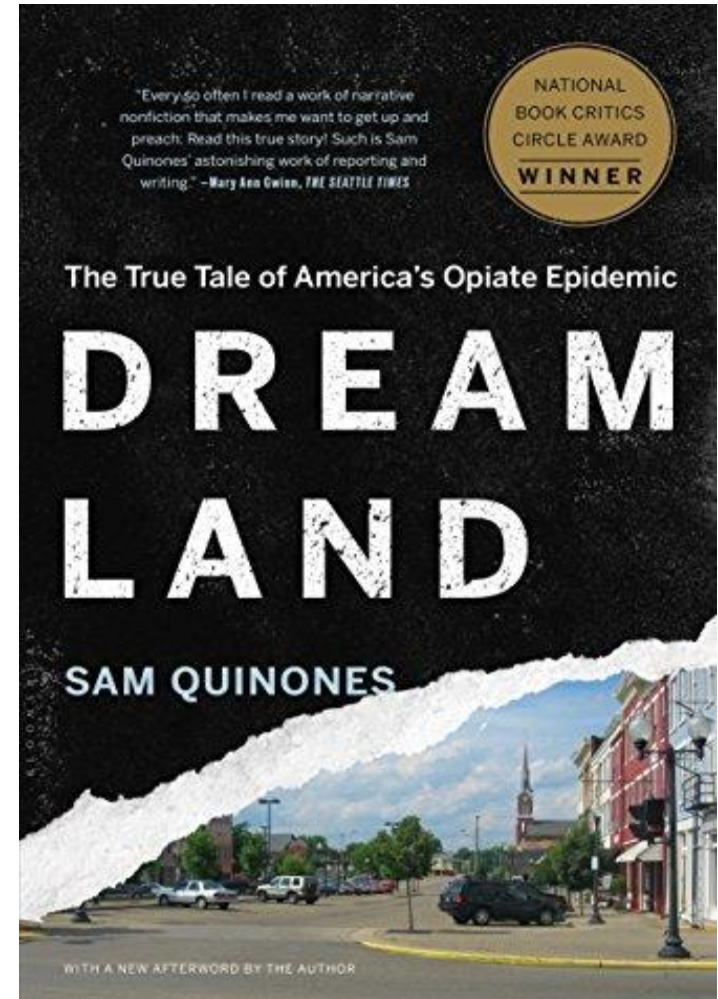


theearthchild.co.za



# How did we get to this?

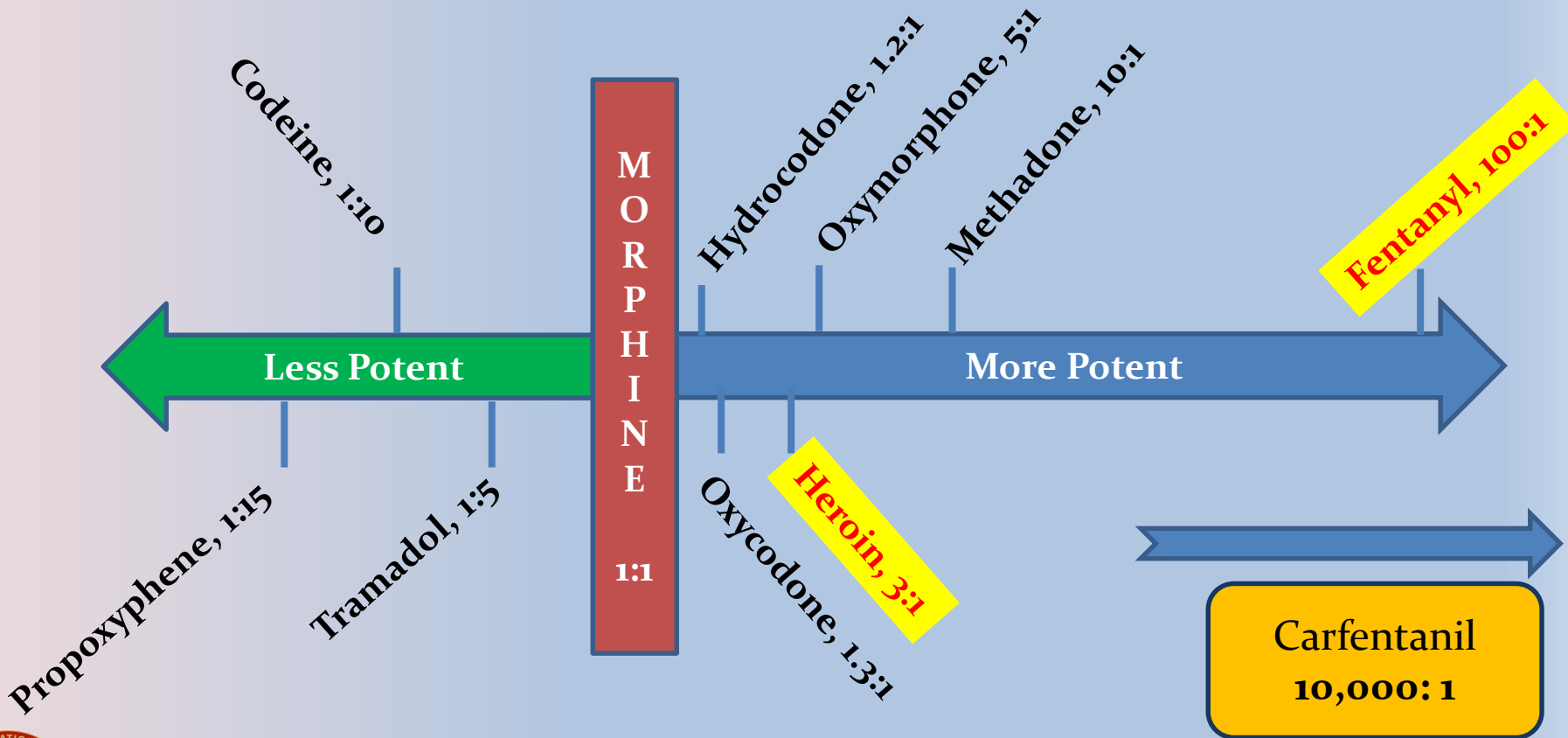
- 1804 – Morphine distilled from opium
- 1898 – Bayer invents diacetylmorphine (heroin)
- 1914 – Harrison Narcotics Act
- 1950s- Arthur Sackler/Purdue Pharma :Valium
- 1960- Janssen creates fentanyl
- 1980- Porter and Jick in NEJM
- 1981 – Patent for fentanyl expired
- 1990s – Xalisco expands heroin distro
- 1996 – Oxycontin
  - Dr. David Proctor
  - Pain treatment (Human right)
  - Heroin explosion
- 2013 – The Third Wave



*Portsmouth, Ohio*



# General Potency Comparison



# Estimated Fatal Dose

\*Single dose of  
Fentanyl by IV:  
125 micrograms



Approximately  
30 grains of  
salt!

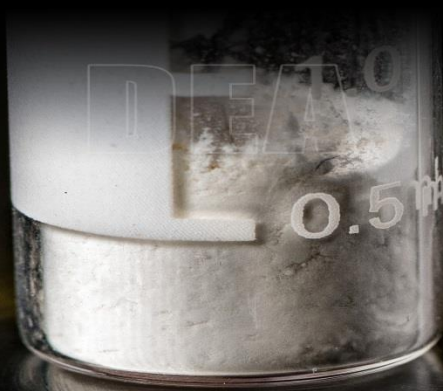
2 milligrams of fentanyl hydrochloride

Source: European Monitoring Centre of Drugs and Drug Addiction: <http://www.emcdda.europa.eu/publications/drug-profiles/fentanyl/> (01/20/2016)





**Lethal doses of Fentanyl and Carfentanil relative to a lethal dose of Heroin**



**Heroin**



**Carfentanil**



**Fentanyl**

# Biggest Carfentanil Seizure

September 20, 2017: Durham Regional Police (Canada) discovered approximately 53 kilograms of an unknown substance and 33 guns in the basement of a Pickering residence.

Lab analysis revealed that 42 out of the 53 kilograms were in fact Carfentanil.



Forty-two kilograms of Carfentanyl was found in a Pickering basement during a carbon monoxide call in late September. (Durham Regional Police)



A man was charged with over 330 charges in September after Durham police seized 33 guns and other prohibited devices from a Pickering home.

Handout / Durham Regional Police Service





# Worst Case Scenario

## *HOSTAGE DRAMA IN MOSCOW: THE TOXIC AGENT; U.S. Suspects Opiate in Gas In Russia Raid*

By JUDITH MILLER and WILLIAM J. BROA

OCT. 29, 2002



Clothing samples from British survivors of the attack showed the presence of the narcotics remifentanyl and carfentanyl. The same study detected norcarfentanyl in another survivor's urine

they were holding.



The gas killed 117 hostages, all but one of those who died in the Russian assault to retake the theater.

The senior administration officials said their suspicions were tentative, because Russian authorities had refused to provide American officials in Moscow with information about the drug used in the assault. Nor has the United States been able to test the gas or take samples from hostages exposed to it, they said.

But a senior American official did say intelligence sources had indicated that the Russians probably used an aerosol form of Fentanyl, "or a



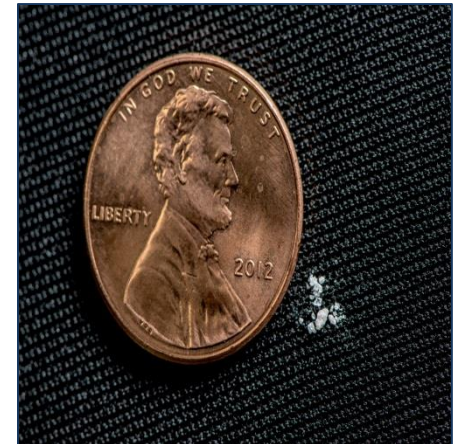
# Shocking Fentanyl Facts

- 2000 to 2018: over half a million people have died from drug overdoses.
- Drug overdose deaths nearly tripled from 2010 to 2013.
- CDC estimated 95,000 people died from fentanyl in last 5 years

## OPIOID OVERDOSE DEATHS:

- 2016: 42,000      2017: 72,000      2018: 68,500

- 1 KG of pure Fentanyl:  
    One MILLION pills at 1MG/pill
- 1 KG of Carfentanil:  
    50 MILLION **LETHAL** DOSES





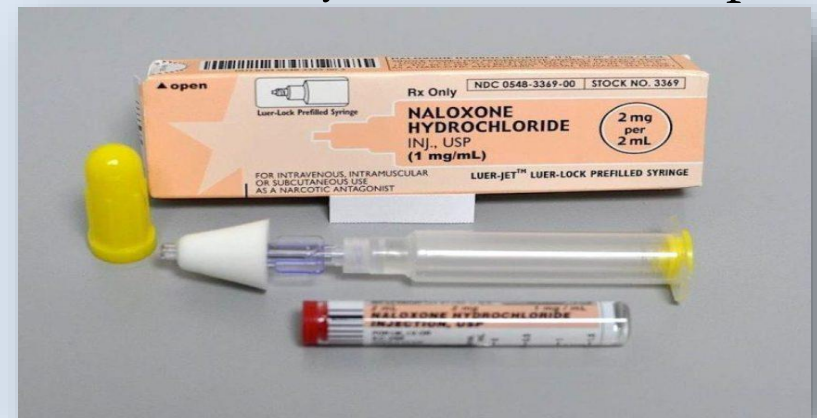
# First-Responder Dosed with Fentanyl

- ❖ September 4th, 2018
- ❖ New Jersey State Police Trooper
  - ❖ Processing evidence at station
  - ❖ Symptoms:
    - ❖ Extreme fatigue (quick onset)
    - ❖ Shaking
    - ❖ Face turned blue (cyanosis)
  - ❖ Loss-of-Consciousness within 1 minute
  - ❖ Required 3 doses of Naloxone (then regained consciousness)

#### Sources:

- NJSP Preliminary Fact Sheet (dated 9/6/18)
- NJSP Intelligence Dissemination Report "Forensic Analysis Confirms Law Enforcement Exposure to Fentanyl" (dated 9/7/18)

- ❖ Confirmation
  - ❖ Substance presumptively scanned by first-responders
  - ❖ Substance identified via forensic lab analysis
  - ❖ Dosing confirmed forensic lab analysis of urine sample



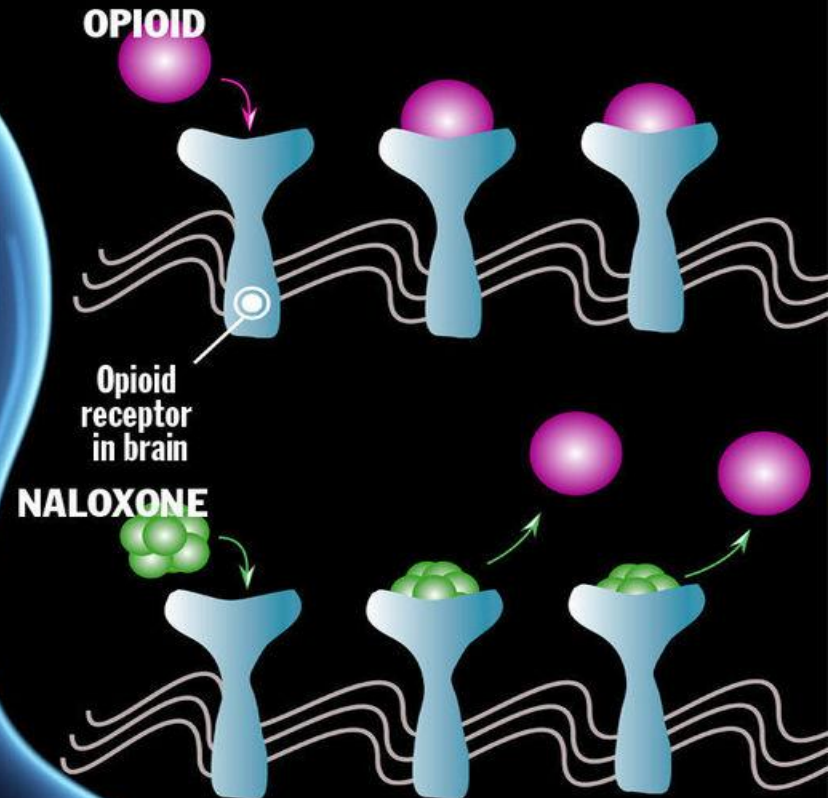
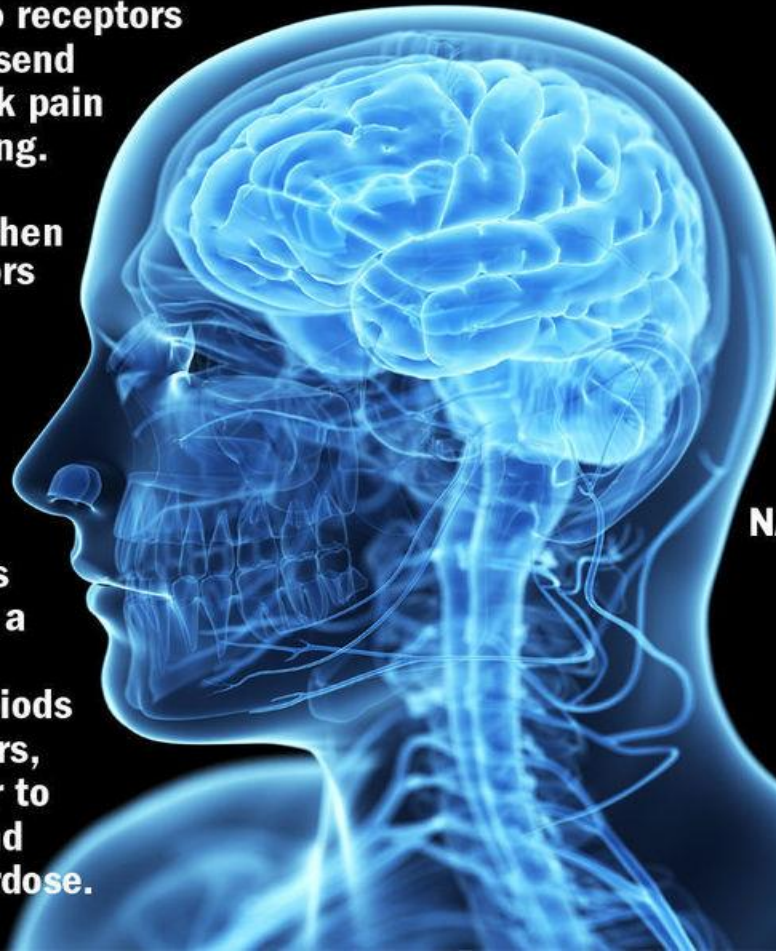
# Narcan

## HOW NALOXONE REVERSES AN OPIOID OVERDOSE

Opioids attach to receptors in the brain and send signals that block pain and slow breathing.

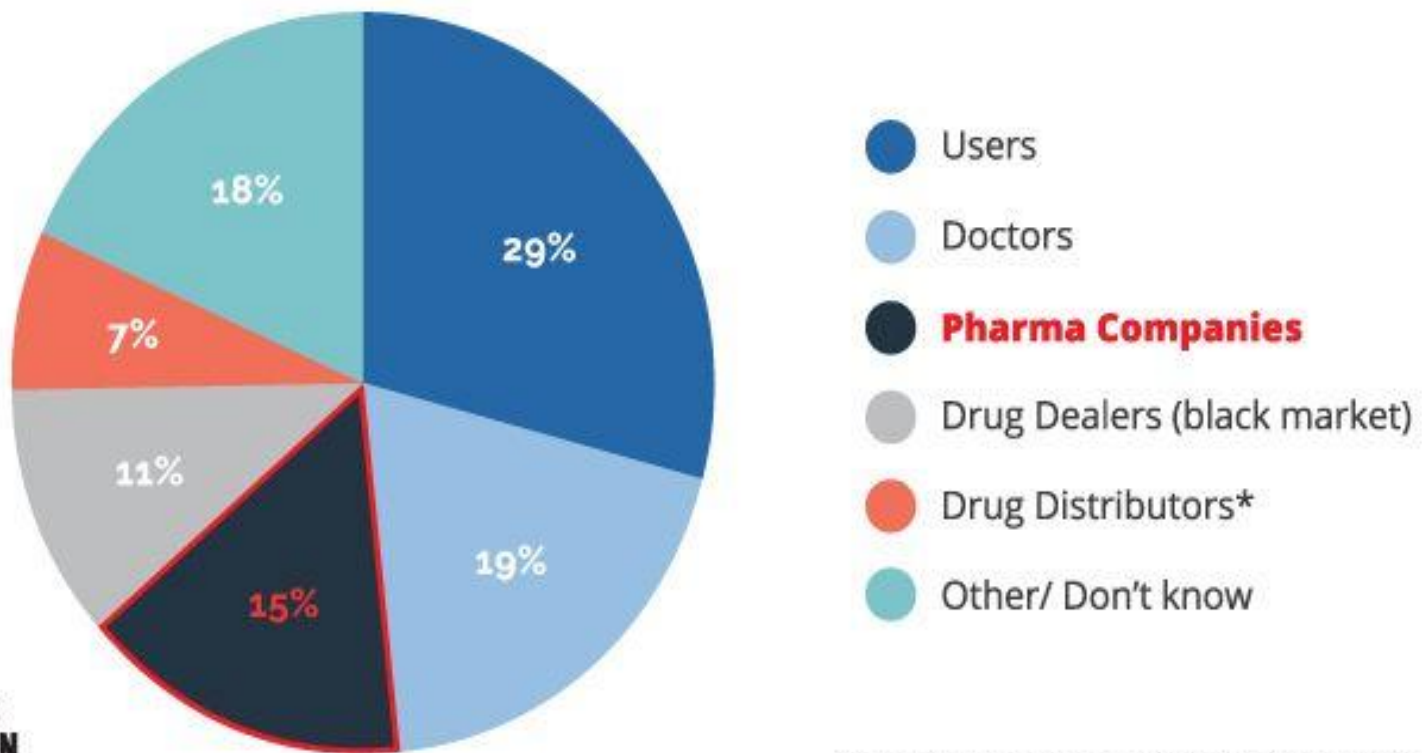
Overdoses occur when the brain's receptors are overwhelmed by the attached opioids, which causes the user to stop breathing.

When naloxone is administered via a nasal inhalant, it unseats the opioids from the receptors, allowing the user to breathe again and reverses the overdose.



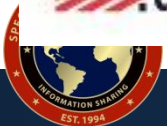
# So, Who Is to Blame?

## MOST RESPONSIBLE FOR THE NATION'S OPIOID CRISIS



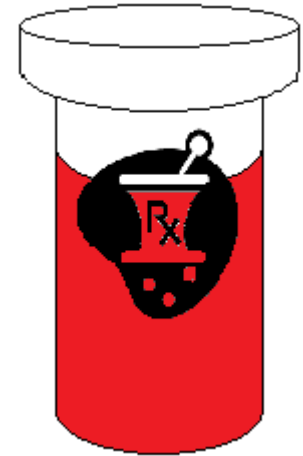
\*MIDDLEMEN BETWEEN DRUG COMPANIES AND PHARMACIES

SOURCE: SURVEY MONKEY POLL OF 3,645 ADULTS, INTERVIEWED MAY 24-29, 2017



# Prescription Drug Abuse Drives the Opioid Problem

Comprises 5.5% of  
World's Population



Consumes 75% of World's  
Prescription Medication!

- 1999-2010, opioid prescriptions **QUADRUPLED**
- In 2010, enough prescriptions written to medicate every American, 24 hours a day, for one month
- 2006-2012: 3 companies produced 76 Billion opioid pills

Source: United Nations Office on Drugs and Crime.



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# Production

## *WHY SELL FENTANYL?*

- It is cheaper to make
- Easier to transport
- Requires less workers and manpower
- Harder to detect by law enforcement
- Creates a **MUCH** larger profit
- Can be sold through anonymous transactions



# All About the Money

Figure 13. Potential Revenue Generated from Fentanyl Pill Sales Using 1 Kilogram of Fentanyl (in USC)

Amount of Fentanyl Per Pill	Price Per Pill	Price Per Pill	Price Per Pill
	\$10	\$15	\$20
1.5 milligrams (666,666 pills)	\$6.6 million	\$9.9 million	\$13.3 million
1 milligram (1 million pills)	\$10 million	\$15 million	\$20 million



- One Kg of 99% pure fentanyl from China: \$5000 -10,000
- Wholesale price in NE (4-6%): \$80,000
- Yield of 16-24 kgs = Revenue of \$1.3 - 2 Million





# How does it get here?



**One day @ JFK International Mail Facility**

**Nine other IMFs in the US**



*\*What is Consolidated Post?*

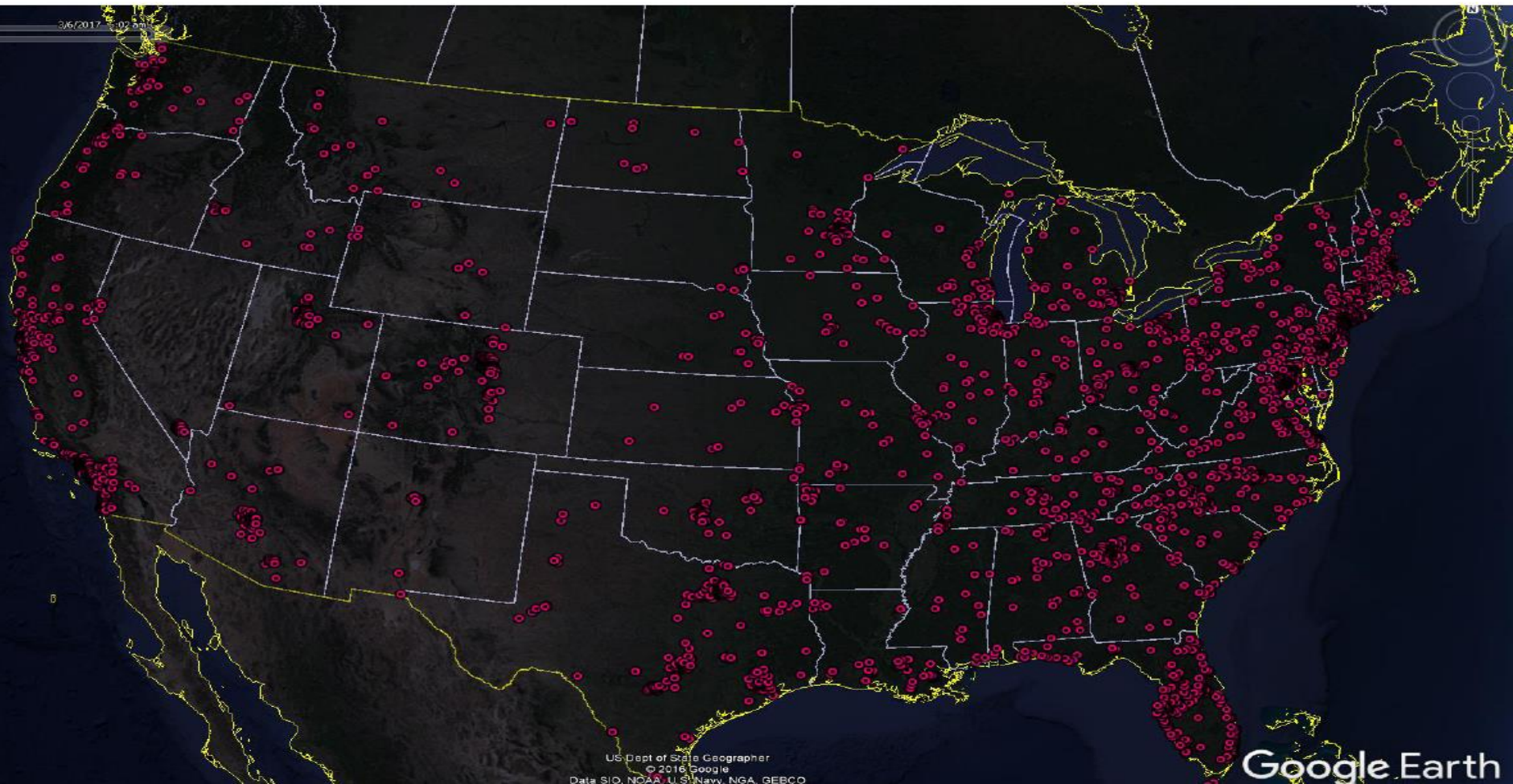


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# Reaching more customers

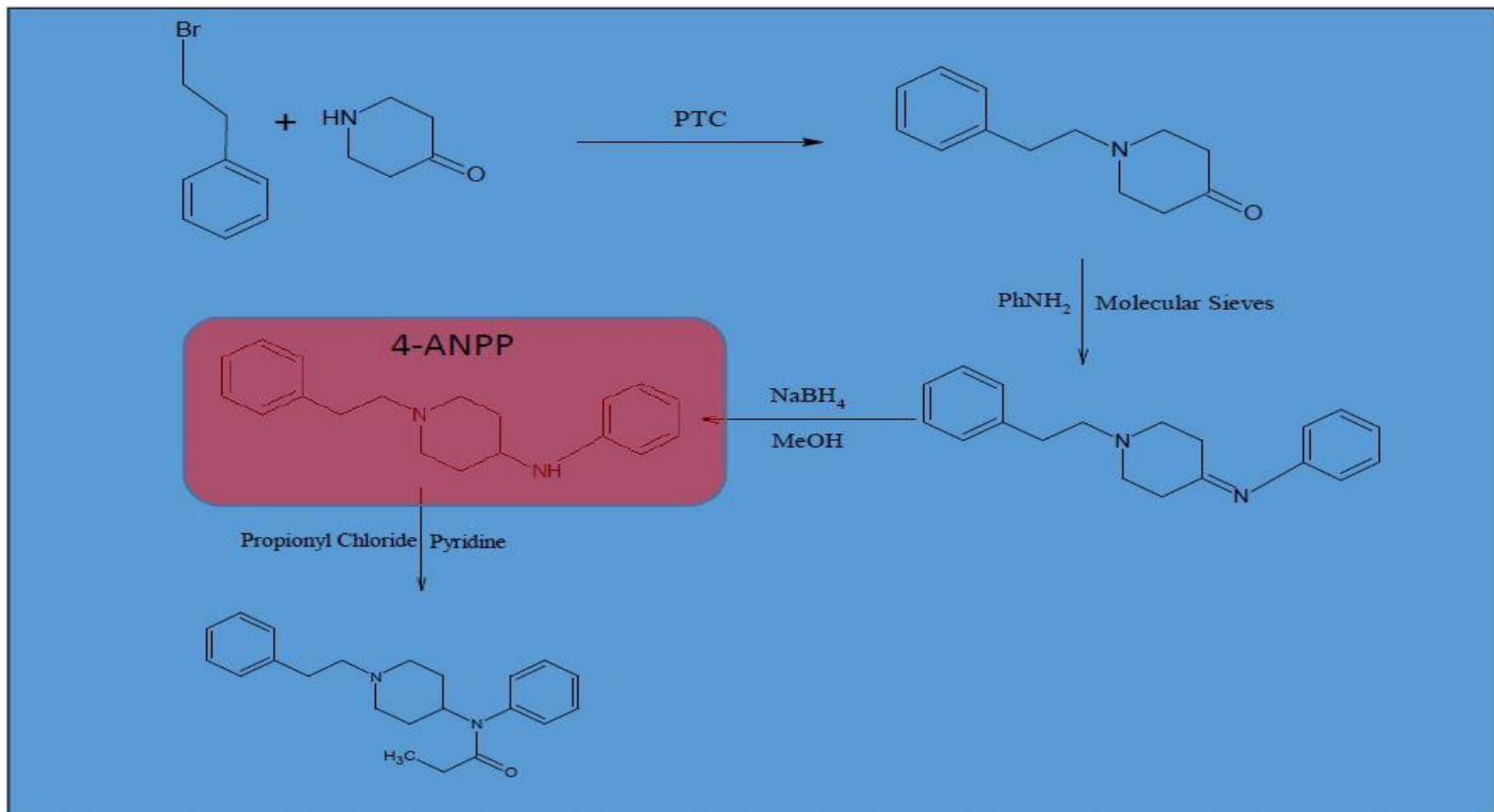
Utah Regional Distributor mailed 400,000 parcels across the United States in 6 months.

## Identified Zip Code Locations of Pharma-Master CONUS Sales



# Manufacture

## The Siegfried Route



# Mexican Synthesis Lab

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**November 7, 2017**: Culiacán, Sinaloa.

-Seized 809 grams of NPP; 1.4 kg of 4-ANPP; 80 liters and 789 grams of noscapine; 66 grams of fentanyl; and clandestine Fentanyl laboratory equipment.



- 3 separate rooms
- Capacity for 10kg of fentanyl/day
- Tokyo Chemical Industry
- Lab operated by sons of Chapo Guzman



# What is Noscapine?



**Noscapine shipments  
that look like heroin**

**Non-Controlled  
opium alkaloid**

Noscapine can be as abundant as morphine in opium and is usually discarded as processing waste during heroin production



# Seizure of 2.24 Kilograms of Fentanyl

- April 3, 2017: Nogales, Arizona  
CBP seized 2.24 kilograms of fentanyl concealed under the seat of a stroller. The pedestrian was accompanied by her two minor children.



- She had made 34 prior crossings with no secondary referrals in the past 6 months.

**CBP: FY2018 (to 6/22/18)  
Approx. 668 kg of fentanyl**

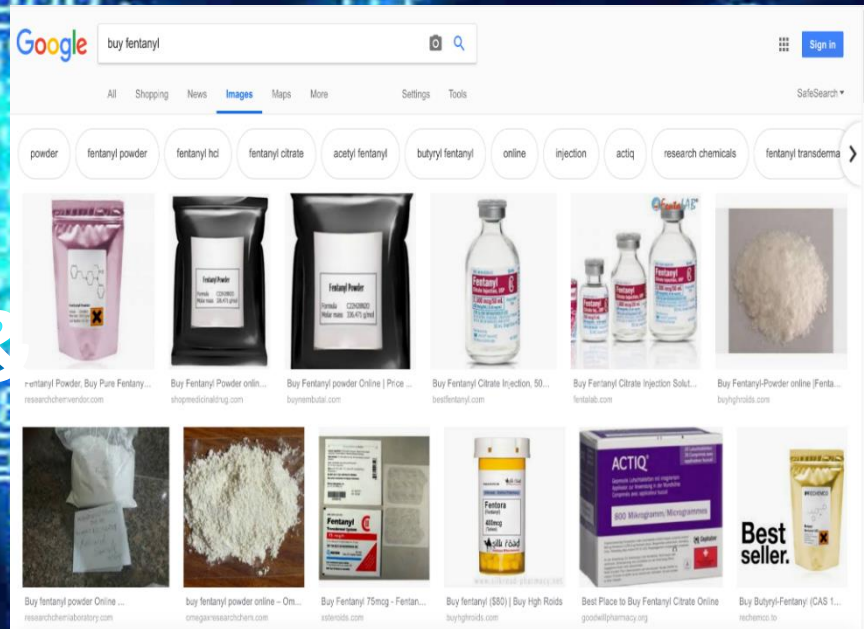


# Regional Distributors/Pill Manufacturers

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# Darknet v. Clearnet Investigations





# Surface / Deep / Dark



Surface Web



Academic information

Government Resources

Deep Web

Hacker's

illegal Porn

Dark Web

TOR-Encrypted Sites

illegal information

# Cleernet, or Surface Web

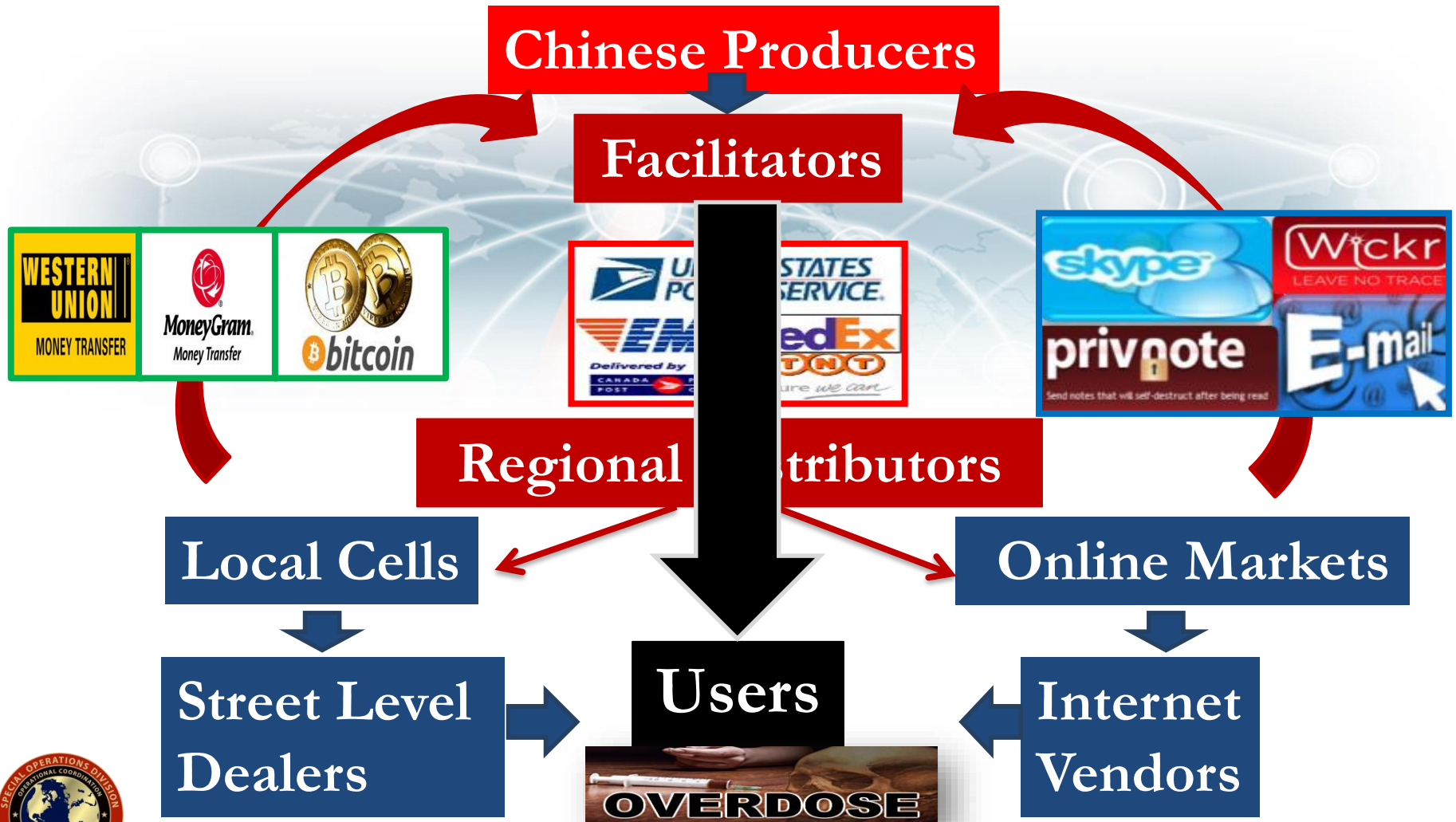
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2018: The National Association of Boards of Pharmacy® (NABP®) evaluated **100 websites** selling medications to patients in the US, and **all of them were found to be operating illegally**. The study found that:

- 54% of the sites were selling controlled substances (CS). This is a substantial jump from the 13% of all sites NABP has reviewed and listed as “Not Recommended” in the past nine years that were selling CS.
- 98% of the sites did not require a valid prescription.
- 40% of the sites were selling CS, including opioids frequently linked to fentanyl-related overdoses. The most common CS being offered with no prescription was Xanax®, a drug whose counterfeit could contain fentanyl.



# Supply and Demand



# Law Enforcement Measures

## Drug Trafficking Organization

### Financial



### Communication



### Transportation



# DEADLY MERCHANT

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# News Article on Overdose

## Proactive Efforts by SOD Connects the Dots



FENTANYL  
INTERNATIONAL  
SOURCES OF SUPPLY  
MONTREAL



REGIONAL  
DISTRIBUTOR PORTLAND,  
OREGON

Grand Forks  
ND



- 01/07/2015: News article on the overdose death (fentanyl) in Grand Forks , ND
- SOD reaches out to DEA Fargo, then HSI Grand Forks
- Death subsequently linked to WPBRO Target Daniel Vivas Ceron



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# North Dakota Overdose Death



- 2015 – Overdose death of Bailey Henke, age 18, in Grand Forks, ND
- Investigation leads to Portland, Oregon – Brandon Hubbard
- UC assumes persona and begins communicating with Canadian sources
- Girlfriend Channing Lacey
- Hubbard sentenced to life in prison

*\*SOD ADDED VALUE: Investigation De-confliction*



**ND: 2 x Overdoses  
(1 Resulted in Death)**  
**OR: 3 x Overdoses  
(1 resulted in Death)**



# Florida UC / Canadian Target



- 2013 - Jason BERRY arrested in Montreal with over 300,000 pills and 1300 kgs of controlled substances
- 2014 – Introduces cellmate, Daniel VIVAS-Ceron, to fentanyl trade – from prison
- 2015 – Joint investigation w/RCMP; Email analysis determines source of fentanyl operates in China under moniker “Hong Kong Zaron”



Yaakov GoldMountain



Yaakov  
GoldMountain







# Communication

- Sun Rise ✓
  - Viking warrior 01 ✓
  - Russia storm ✓
  - miami meth ✓
  - global Empyr ✓
  - molly Johnson ✓
  - RX Med's worldwide ✓
  - gardo199 ✓
  - The One man 3 ✓
  - coldinH ✓
  - Chapulin 1985 ✓
  - Steve 1968 ✓
  - perfumes ✓
  - Kaisersoser ✓
  - Rene oryan ✓
  - Konstantin Borodinski ✓
  - JUSTAMOM ✓
  - ambitious299 ✓
  - Johny 789 ✓
  - live7lives ✓
  - Speedygon sales ✓
  - Claude segin ✓
  - familia 123 ✓
  - Russia storm ✓
  - Bond frank ✓
  - odd couple ✓
  - PYR4NY ✓
  - david heep 123 ✓
  - cindy Thomas ✓
- Beautygirls ✓
- ~~7899~~
- Burn the snitches ✓
- The paperkain ✓





# Los Angeles Lab

- 2016 – CBP pill press delivery to LA leads to search warrant of Gary RESNIK
- 127 kgs of synthetic controlled substances: **FENTANYL, MDMA, U-47700**
- Found numerous priority mail envelopes to mail pills on behalf of ZARON; Receipts for deliveries across the US
- The names and addresses were run through our National Targeting Center  
**\*SOD ADDED VALUE: Intra-Agency Coordination**





# Tracing the packages...



YUGUANG LIU  
269 Hu Qing Ping Rd  
Shanghai, China



*\*1,061,358 shipments in one year*





# Following the money...



## Financial Analysis:

12 potential subjects....

#	NAME	DOB	SSN	ADDRESS	CITY	STATE	ZIP	TYPE	TRANSACTIONS	DATES
1	Gary Burton Resnik aka: Josh Parker	10/29/1984		5995 E Pacific Coast Hwy #1	Long Beach	CA	90803	MG	4 small to Yesenia Beltran	Jul-15
2	Christopher Bowen	3/15/1986		9302 Watt River	Fountain Valley	CA		WU	\$2050 to JIANLEI QU	11/5/2014
				6957 Rivertrails	Mira Loma	CA		WU	\$1620 to KEPING ZHANG	12/22/2014
				5995 E Pacific Coast Hwy #1	Long Beach	CA		WU	\$2000 to CUIYING LIU	1/19/2015
				1108 Jarrow Ave	Hacienda Heights	CA	91745	WU	\$2000 to CUIYING LIU	1/23/2015
				20351 Tidepool Cir	Huntington Beach	CA		WU	\$500 to CUIYING LIU	1/26/2015
								MG	\$2000 to NA CHU	2/10/2015
								MG	\$2200 to NA CHU	2/14/2015
								MG	\$2500 to NA CHU	3/24/2015
								MG	\$2500 to NA CHU	3/25/2015
								MG	\$2750 to NA CHU	3/27/2015
3	Joseph Stanley Stout aka: Joseph Allen Stanley	12/10/1985								
4	Megan Foster	7/16/1993		711 S. Nott Ave	Anaheim	CA	92804	WU	\$1100 to JIAN ZHANG	11/15/2014
				711 S. Knott Ave #14				WU	\$3000 to JIANLEI QU	11/15/2014
								WU	\$1500 from Cory Whitney	2/10/2013
								WU	\$100 from Cory Whitney	3/24/2013





# Following the money...



## Financial Analysis:

...leads to 520 New Transactions

						CUIYING LIU
285.007122896273	SPENCER RUST	AKC403616	5/20/201501:34:00	702203		CUIYING LIU
406.083353889959	JOSHUA CALLEJA	ACN234626	5/14/201519:18:00	647984		NA CHU
150.008502044745	LOUIS GONZALES	ADT326984	5/11/201517:24:00	567322		NA CHU
2180.002308496979	LINDSEY STALEY	AST128023	5/8/201513:12:00	509432		NA CHU
2000.009225016148	MICHAEL WILHELM	ALA412113	5/7/201512:49:00	925787		NA CHU
50.662283677255	ARTHUR STEFANOPOULOS	AAU317700	5/6/201501:47:00	040646		NA CHU
1000.009446996606	JONATHAN DUFRISNE	ALA355847	4/26/201517:22:00	925565		JIAN ZHANG
750.009183556053	BRANDON BROWN	ALA368597	4/24/201519:20:00	714906		CUIYING LIU
1000.000976909403	CORY STEEL	ADT933195	4/23/201519:23:00	419280		JIAN ZHANG
440.005687806756	PANAGIOTIS KONTONIS	ACH110319	4/21/201512:29:00	847812		JIAN ZHANG
400.003175610670	JOHN GREEN			2936		JIAN ZHANG
800.009708248709	JOHN GREEN			2936		JIAN ZHANG
750.004819267675	JOHN CHANG	AWA057169	3/2/201521:08:00	301251		JIAN ZHANG
750.004738453437	AMY WINEHOUSE	AWA057169	3/2/201521:12:00	301286		CUIYING LIU
						KEPING ZHANG

**\*SOD ADDED VALUE: Data collection and Analysis**



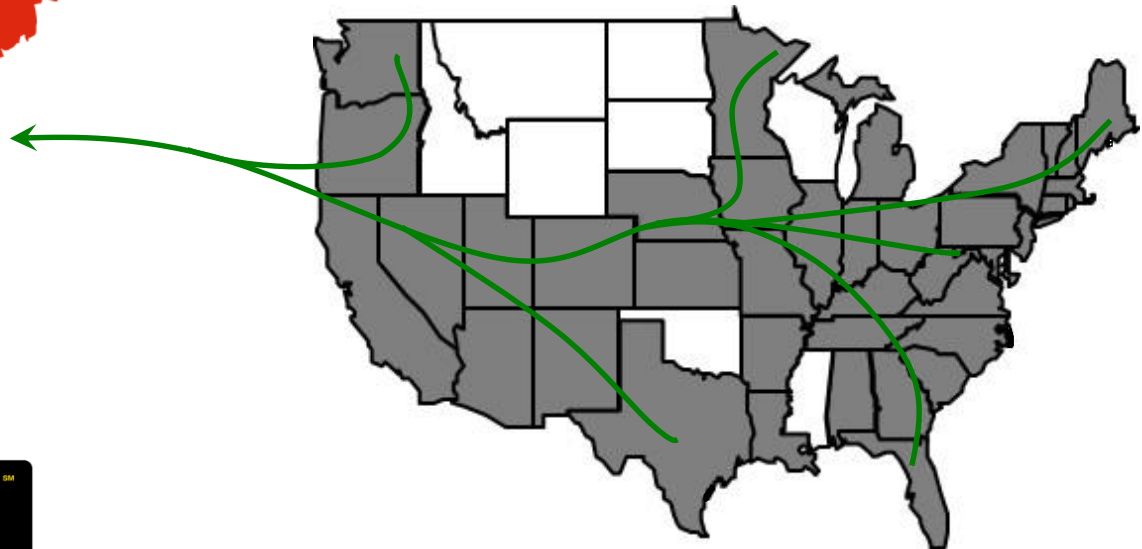
# Payments to China



Western Union money movements during 2012-2016  
Identified one large Chinese network



41 States with significant money transfers to China



*moving money for better*

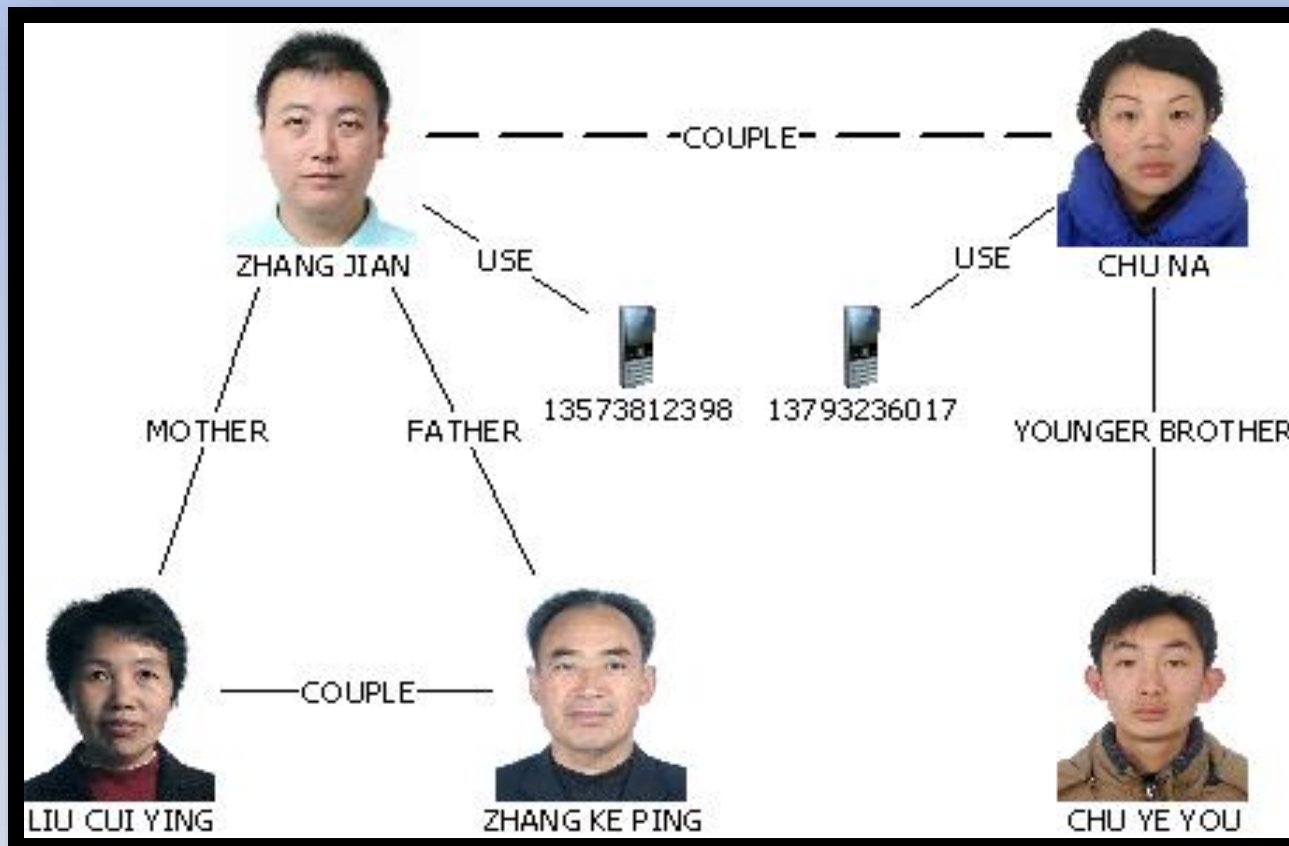
*\*SOD ADDED VALUE: Lead generation*



# International Cooperation



Through National ID numbers....



# IMPACT!



## SOD ADDED VALUE:

- Linked several investigations in the US and Canada
- “Hong Kong Zaron” is Jian ZHANG, owns Zaron Biotech
- Meetings in California, North Dakota, Florida and SOD
- Coordinated with Chinese Law Enforcement in Beijing
- 1<sup>st</sup> ever Consolidated Priority Organization Target (CPOT)

## RESULTS:

- 30 Federal Indictments
- 73 Arrests
- Shut down labs; seized drugs and equipment
  
- OFAC sanctions against ZHANG
- 9/20/17: **Indicted Chinese National Jian ZHANG**
- 1/18/18: Indicted 4 more Chinese Nationals





# China's Cooperation

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- October 2015: 116 new substances
- March 2017: Carfentanil and three other fentanyls
- June 2017: Four synthetic & opioid-class drugs (U-47700)
- December 2017: NPP and 4-ANPP
- May 2019: All Fentanyl Analogues

**\*U.S./ China do not have an extradition treaty**



# Ok. Now what?

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# The real crime?

West Virginia Health Commissioner Rahul Gupta says the state's volunteer fire departments are particularly stressed. He cites as an example the astronomical price of an auto-injector called Evzio, which drug maker Kaléo says came on the market in 2014 at \$575 for a pack of two and is now \$4,100.

*-USA Today, May 16, 2018*

NARCAN Spray Market in 2018: \$178 Million  
Estimated market in 2026: \$928 Million



# You're kidding me, right?

## WHAT IS DSUVIA?

A sublingual tablet form of sufentanil

- 1000 times stronger than liquid morphine by weight
- 10 times stronger than prominent drugs like fentanyl



So what does a fentanyl dealer look like?



John  
**Kapoor**

Insys Therapeutics Inc.  
Founder

Bloomberg

**INSYS'S KAPOOR CHARGED WITH  
HELPING TO FUEL OPIOID CRISIS**

# Thank you

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