

**Trafficking Trends:  
Fentanyl and  
other Opioids/Opiates**



**Major Frank O'Neal**



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**Why are we here today?**

**Why is it important that we  
talk about this?**



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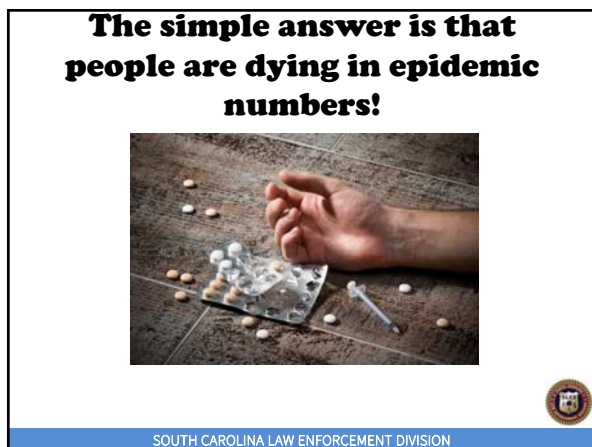
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**How did we get here?  
“The Perfect Storm”**

- **Industry producing a wider variety of controlled substance pharmaceuticals – Aggressive marketing to practitioners**
  - Inadequate Pain Control
  - Opioids safe and effective for non-cancer pain
  - Risk of addiction rare
  - Opioid use can be easily discontinued
- **Practitioners prescribing more drugs**
- **Use of Medicare / Medicaid or insurance to fund drug habits**
- **Information / Electronic Era.**
- **Belief that everything can be solved with a pill – immediately**

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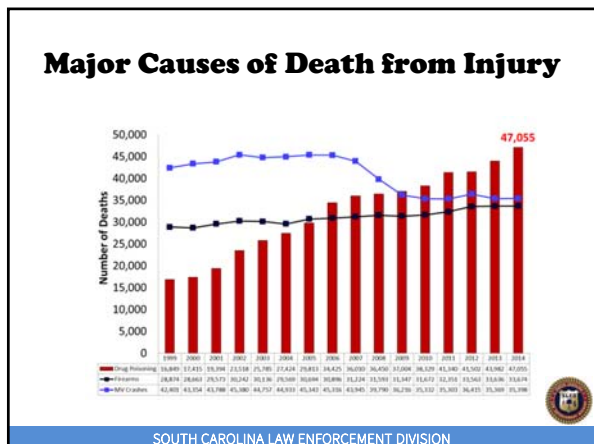
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### Opioid Deaths

- **The US Center for Disease Control Reports between 2013 and 2014 – DEATH rates resulting from synthetic opioids increased more than 72%**
- **These numbers keep increasing with more than 33,000 overdoses in 2015.**

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### Consumption of Hydrocodone Top 10 List

>10 Guatemala	10 kilograms
>09 India	10 kilograms
>08 Vietnam	20 kilograms
>07 China	20 kilograms
>06 Denmark	25.5 kilograms
>05 Columbia	30 kilograms
>04 Syrian Republic	50 kilograms
>03 Canada	115.5 kilograms
>02 United Kingdom	200 kilograms
>01 United States	79,700 kilograms 99.3%

The U.S. makes up 4.6 percent of the world's populations but consumes over 82% of the world supply of opioids.

SOURCE: UN International Narcotics Control Board website. Estimated World Requirements of Narcotic Drugs in grams for 2014. <http://www.incb.org>. Accessed April 14, 2014.

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## Consumption of Opioids

The United States was the country with the highest consumption of the following drugs:

DRUG	2012	2013	2014
HYDROCODONE	99%	99%	99%
OXYCODONE	82%	78%	73%
MORPHINE	57%	57%	53%
HYDROMORPHONE	42%	51%	53%
METHADONE	49%	51%	48%
FENTANYL	37%	31.5%	30%



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## From Prescription Pain Killers to Heroin

Contributing to increased demand for heroin

- 19 times higher among former CPD abusers.
- 80% of new heroin abusers were CPD abusers.
- Small number of CPD abusers = large influx of heroin users.
- CPD abusers at elevated risk.

Reason - Price, Availability and Tolerance.



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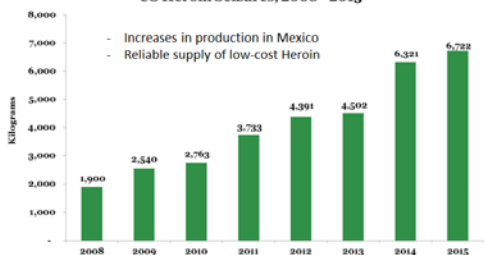
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## Availability Increasing

US Heroin Seizures, 2008 - 2015



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
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## Discussion Topics

- **Fentanyl**  
 Introduction  
 Higher potency 'fentanyl'  
 Local Impact  
 Notable submissions
 
- **U-47700**  
 Grey Death  
 Notable submissions
 
- **Why? Fentanyl and From Where?**
- **Officer Safety**

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## Fentanyl

- **Synthetic opioid introduced in the 1960s.**
- **Schedule II under CSA.**
- **50-100x more potent than morphine.**



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## Fentanyl Origins

- **Relief of severe on-going pain.**
- **Anesthetic for patients with heart conditions.**




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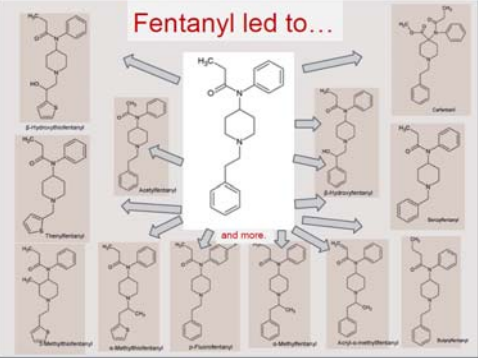
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## Fentanyl led to...



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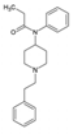
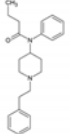
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## Federally Controlled 'Fentanyl'

- **Permanently Controlled**
  - fentanyl
  - carfentanil
  - acetyl- $\alpha$ -methylfentanyl
  - $\beta$ -hydroxy-fentanyl
  - $\beta$ -hydroxy-3-methylfentanyl
  - $\alpha$ -methylfentanyl
  - $\alpha$ -methylthiofentanyl
  - 3-methylfentanyl
  - 3-methylthiofentanyl
  - para-fluorofentanyl
  - thiofentanyl

- **Emergency Scheduled**
  - acetyl fentanyl (July 2015)
  - butyryl fentanyl (May 2016)
  - $\beta$ -hydroxythiofentanyl (May 2016)

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### Impact

- Many are untested, may be toxic
- No medical information available on potency
- May not respond well to naloxone or other opiate antagonists
- Hospital drug screen panels and forensic testing may come back negative



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### Carfentanil

- Schedule II
- Used to sedate large game and livestock (Wildnil®)
- Usually found in heroin submissions at extremely low levels
- 100x more hazardous than fentanyl



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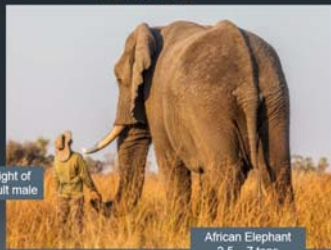
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Carfentanil was never meant for humans!



26-72x weight of average adult male

African Elephant  
2.5 – 7 tons  
(5,000 – 14,000 lbs)

Source: National Geographic



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### Potency Differences



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### Carfentanil Cases - 2016



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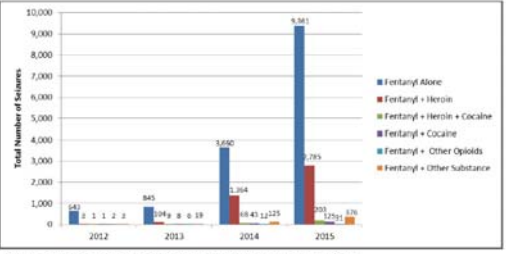
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### Nationwide Total Fentanyl Seizures



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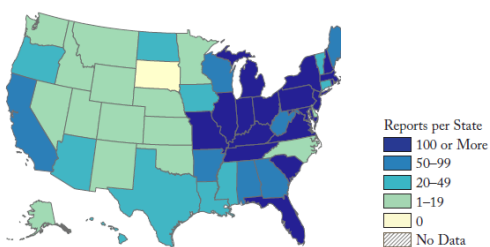
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Figure 4 Fentanyl reports in NFLIS, by State, 2015



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**Which one contains fentanyl?**



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**Range of Colors Variety of colors seen for heroin/fentanyl combinations**



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### Can you *spot* the counterfeit?



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### Fentanyl Tableting Lab

- July 2016 -24 overdoses and 3 deaths in 48 hours
- 1.2 kg fentanyl and alprazolam
- 15 g pure fentanyl powder
- Tablet dies
- Tablet binding powder and coloring powder
- AR-15
- \$2,000 cash
- 7 people indicted—facing minimum of 20 years-life



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### Where is the fentanyl coming from? And Why?



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## Fentanyl

- **Main distinction in current crisis from 2006 outbreak.**
  - Not only in heroin supply.
  - Now in counterfeit prescription medications.
  - Making it desirable to more opioid users
- **2006 – crisis fueled by mainly one clandestine laboratory in Mexico.**
- **Now –fentanyl and fentanyl precursors sold to many individuals and organizations.**



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- **Canada – sharp increase of overdoses and deaths resulting from fentanyl since 2012.**
- **In Canada, fentanyl mixed with heroin and pressed into counterfeit pills.**
- **Canada just passed legislation which will implement regulation of pill presses and tableting machines – effective Jan 2017.**
- **Fentanyl in Mexico – mainly use precursor ANPP – N-phenyl-1-(2-phenylethyl) piperidin-4-amine.**
- **This precursor has been seized in the borders; indicating that traffickers are producing fentanyl**



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- **China - Primary source in Canada, Mexico and US.**
- **In 2015 – China introduced new controls on 116 drugs or chemicals – which include some fentanyl (19 - including fentanyl).**
- **China based illicit suppliers offering new version of drug to circumvent scheduling.**



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### Why This Increase?

Potential Profit With *Minimal* Investment  
Fentanyl Generates *Greater* Profits Than Heroin

Drug	Cost Per 1 Kg to DTO	Approximate Number of Kgs Produced	Wholesale Price per Kg in USA	Revenue to DTO from 1 Kg
Heroin	\$6,000 - 7,000	1 kg	\$80,000	\$80,000
Pure Fentanyl (99%)	\$4,200 - 6,000	16-24 kg (4%-6%)	\$80,000	\$1,280,000 - 1,920,000



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### South Carolina Opiate Use Ranking by County

COUNTY	Deaths Due to Opioid Overdose 2015	Emergency Room Visits Due to Opioid Overdose 2015	Emergency Room Visits Due to Opioid Use Diagnoses 2015	Naloxone Administration by EMS For 2016
Abbeville	1	6	17	63
Aiken	30	50	115	136
Allendale	0	0	8	8
Anderson	31	74	205	265
Bamberg	1	0	9	12
Barnwell	3	10	26	32
Beaufort	5	32	75	52
Berkley	15	98	190	229
Calhoun	0	0	10	22
Charleston	49	202	526	417
Cherokee	3	15	40	88
Chester	1	12	17	34
Charterfield	2	13	22	30
Clarendon	1	6	27	33
Colleton	6	26	80	42
Darlington	6	35	117	89
Dillon	0	12	43	41
Dorchester	25	91	202	189
Edgefield	2	0	6	4
Fairfield	3	0	16	47
Florence	15	75	281	161
Georgetown	10	82	267	156
Greenville	74	256	408	721



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### South Carolina Opiate Use Ranking by County

Greenwood	2	25	102	54
Hampton	0	13	31	13
Horry	74	312	862	1,020
Jasper	4	6	13	57
Kershaw	6	34	70	79
Lancaster	4	40	92	146
Laurens	8	29	62	140
Lee	0	9	23	30
Lexington	37	147	264	253
Marion	6	16	43	57
Marlboro	1	5	27	33
McCormick	0	6	6	10
Newberry	0	15	34	27
Oconee	13	44	60	83
Orangeburg	6	26	80	88
Pickens	27	69	128	327
Richland	34	125	325	240
Saluda	0	0	9	30
Spartanburg	51	203	452	454
Sumter	5	33	80	116
Union	3	21	35	47
Williamsburg	2	17	46	25
York	28	92	151	210
Total	594	2,398	5,702	6,410



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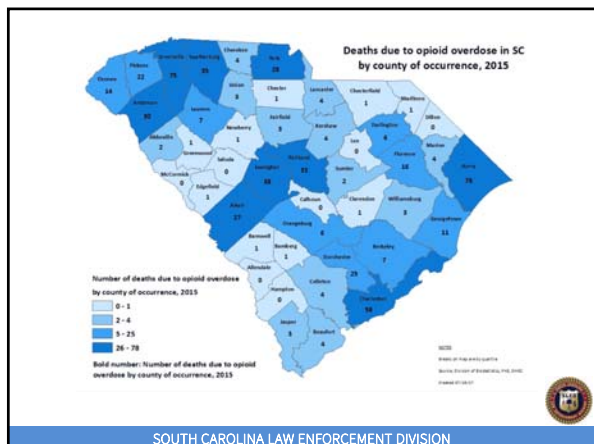
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### Why is it important to talk about other drugs as well?

GATEWAY DRUGS

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### Top 5 Prescribed Drugs - # 5 Stimulants -

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### #5 Stimulants

- While stimulants such as [Ritalin and Adderall](#) are highly addictive, abuse among older people is not as widespread as it is with young adults. However, illicit stimulants like cocaine are more common. In 2008, [63 percent of 118,495 emergency room visits](#) made by those 50 and older involved cocaine. The number of older cocaine users likely increased in the past few years since more than 550,000 adults aged 50 and older [reported cocaine use](#), according to a 2011 report.



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### Top 5 Prescribed Drugs

#### - #4 Antidepressants -



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### Top 5 Prescribed Drugs

#### - #4 Antidepressants -

- While the names are varied -- [Prozac](#), [Zoloft](#) and [Lexapro](#), among others -- the effects are similar. Used primarily to treat depression and mood disorders, antidepressants have a slight potential for abuse and addiction. According to a 2010 report from The Drug Abuse Warning Network, antidepressants contributed to [8.6 percent of emergency room visits](#) by adults 50 and older.



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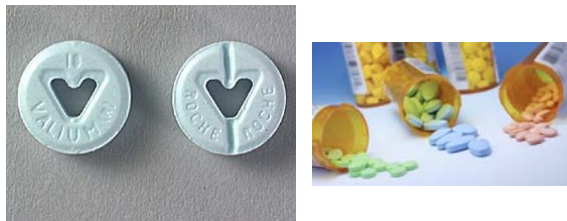
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### Top 5 Prescribed Drugs - #3 Sedatives -



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### Top 5 Prescribed Drugs - #3 Sedatives -

- Most often used to treat anxiety and insomnia, sedatives like Valium and Xanax may become addictive if taken incorrectly, or used too often. The Drug Abuse Warning Network identified sedatives, or depressants, as the pharmaceutical involved in 31.8 percent of emergency room visits by older adults.

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### Top 5 Prescribed Drugs - #2 Pain Relievers -



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### Top 5 Prescribed Drugs

#### - #2 Pain Relievers -

- Painkillers like Oxycodone, Vicodin and Morphine have a high potential for abuse. According to a Drug Abuse Warning Network report, **pain relievers were the type of pharmaceutical** most often involved in emergency room visits for post-50s, encompassing 43.5 percent of senior ER visits.



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### Top 5 Prescribed Drugs ???

#### - Marijuana -



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### Where did the term “Medical Marijuana” come from?

**NORML** founder Keith Stroup confessed that he came up with the name to be used as a red herring to give marijuana a good name.



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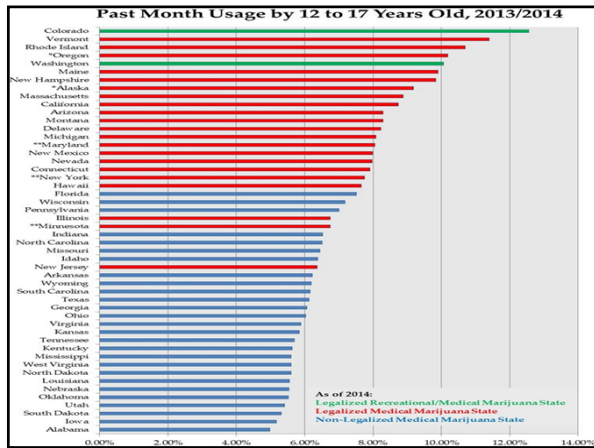
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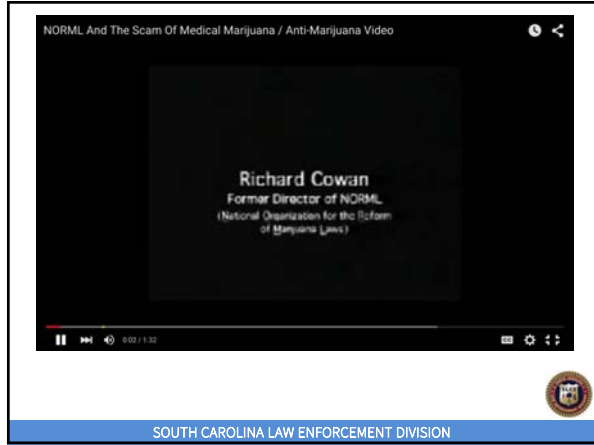
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# Why is Data Important?



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# End of Presentation



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