

Current Drug Trends:

The alphabet soup
ADB-FUBINACA
of designer drugs.

 Bruce R. Talbot Associates
[http:// DrugRecognition.com](http://DrugRecognition.com)



Sergeant Bruce R. Talbot retired in June of 2002 after 26 years of police service in the Chicago metropolitan area. He earned a bachelor of science degree from Southern Illinois University and a Master of Public Administration degree from Roosevelt University in Chicago.

Sergeant Talbot is recognized as an expert in the area of Gateway Drugs and teaches on the topic of drug abuse throughout the United States and Canada. He has been qualified as an expert witness in criminal court trials in Illinois and Texas, and has testified as an expert witness before two United States Senate committees. Sergeant Talbot is also an approved provider by the U.S. Center for Substance Abuse Prevention.

Sergeant Talbot has appeared on the NBC "Today Show," CNN "Talk Back Live", CBS "Eye On America", ABC "A Closer Look" and international programs including the BBC "Science Frontiers," and the CBC "Market Place." He has been featured in major newspapers such as The New York Times and Chicago Tribune. He also authored a feature story in the Saturday Evening Post and has co-authored scientific research on the effectiveness of police enforcement to control adolescent gateway drug use published in the Journal of Applied Behavior Analysis, November 1999. Sergeant Talbot is a featured contributor to the Illinois State Police Quarterly Drug Trends report focusing on emerging drugs and changing drug patterns in Illinois.



Purpose of this Training

- ✦ Examine new synthetic drugs emerging on the street.
- ✦ Challenge media drug myths.
- ✦ Update drug trends in Kentucky.
- ✦ Discuss future synthetic drug abuse.



Officer Chris Cain
Nicholasville, KY Police

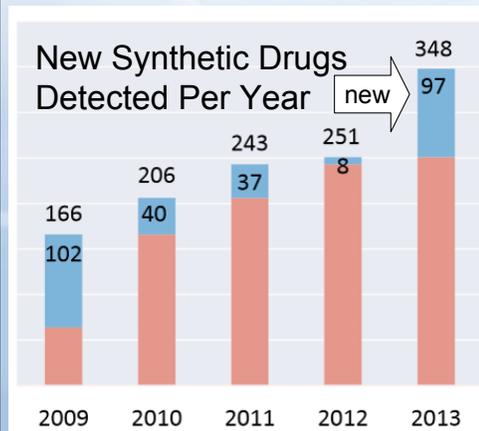
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This seminar will provide an awareness of the issues surrounding designer synthetic drug abuse including:

- The most up-to-date research on synthetic drugs including “Flakka” α -PVP, “Meck” 4-MEC, “N-Bomb” 25I-NBOMe, and synthetic cannabinoids, ADB-FUBINACA, AKB-48, APICA and APINACA.
- A special focus will be placed on 2015 Kentucky Office on Drug Police Control annual report.
- Video clips of drug abusers to recognize symptoms of abuse and study drug paraphernalia.
- Examine current attempts by law enforcement to respond to the increase in Kentucky of heroin and other narcotics overdose deaths.

The material in this text is a combination of federal, state and local law enforcement reports as well as newspaper and television news accounts and is intended for educational purposes only. Permission to quote and non-for-profit reproduction of this material is approved providing proper accreditation of the source material is acknowledged.

2014 United Nations Report



- ✦ 348 new “designer drugs” detected in 2013.
- ✦ Designer synthetics now out-number world-wide the trade in heroin!
- ✦ 35% psycho-active
- ✦ 28% cannabinoids
- ✦ 25% stimulants (cat)
- ✦ No laws against most.

Global trade in synthetics exceeds heroin & cocaine

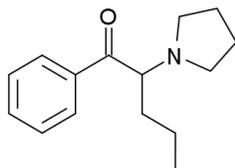
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The United Nations Office on Drugs and Crime issued the 2014 “Global Synthetic Drug Assessment” which made a startling statement: “. . . global illicit drug markets and use levels (of new designer synthetics drugs including methamphetamine) often exceeded those of heroin and/or cocaine.” Since 2010 there has been a “rapid expansion of the global market,” with total seizures rising by more than 80 percent (totaling more than 135 tons of synthetic drugs in 2012 alone). The report relates that each year more never seen before chemical compounds that produce intoxication have been detected. In 2013, 348 designer synthetic drugs were reported worldwide with 97 of that number having never been detected prior to 2013.* The vast majority of these drugs are not subject to any government laws against the production, sale or use in most United Nations member countries.

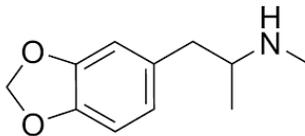
The United Nations report breaks the type of synthetic drug into different classifications than commonly used in the United States. Rather than labeling drugs as depressants, stimulants, narcotics and hallucinogens, the UN report labels the drugs as Aminoindanes, Phencyclidines, Phenethylamines, Piperazines, Synthetic cannabinoids, Synthetic cathinones, Tryptamines, and plant-based drugs like Khat. To make the trends easier to understand, the UN list basically reports that 35-percent of the drugs are what American would consider hallucinogens, 28-percent cannabinoids, and 25-percent stimulants. The United States tends to lag behind the world drug trends so it can be assumed that synthetic drugs will increase here in the near future.

* http://www.unodc.org/documents/scientific/2014_Global_Synthetic_Drugs_Assessment_web.pdf

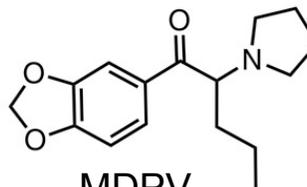
“Designer Synthetics Drugs”



A-PVP



MDMA



MDPV

A new, chemically different drug,
that mimics an illegal drug,
often with improved effects

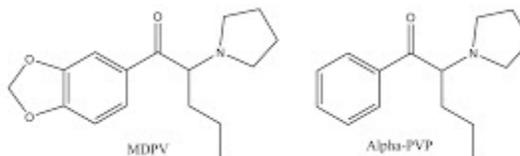
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What is driving the Designer Drug movement in society today? It is the ability to develop new chemical analogs, or kissing cousins, of existing illicit drugs. Today's illicit drug chemist can analyze an intoxicating molecule and rearrange its molecular structure to create new intoxicating drugs. Sometimes it takes sophisticated lab equipment and post-graduate training to develop a new designer drug, as is the case with the Fentanyl analogs we will feature in this seminar. However, many times the new substance can be produced in a garage, bathroom, or kitchen using common household implements and no chemical training at all, as is the case with GHB and Cat. The challenge for stakeholders in the substance abuse field is to stay current in the ever-changing environment of recreational drug abuse. Drug abuse in society is very dynamic. Drugs that were popular a years ago, such as “Ludes,” fall out of favor and are replaced with new drugs, like “N-Bomb”. It is my opinion that society is moving away from plant-based intoxicants, such as marijuana, cocaine, and heroin, and toward manmade synthetic intoxicants. It is impossible to predict which yet-to-be-produced compounds will be tomorrow's ecstasy. We must all be prepared to respond more quickly to new illicit drugs.

Flakka/Gravel News Clip

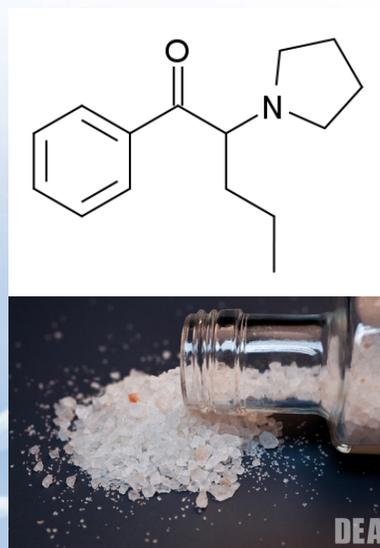


CBS television news in Miami broadcast a news report on a new street drug called “Flakka.” The report features police counter-drug officer Sergeant Ted Taranu of the Broward Sheriff’s Office who related officers are seeing increasing amounts of flakka on the streets, explaining that “flakka” is a synthetic drug similar to bath salts which can produce dangerous hallucinations and cause serious medical problems. Flakka looks like crystals and in other parts of the country is known as “gravel.” In Florida it usually comes in gel caps and is smoked but can also be liquefied and injected. It is very dose sensitive with high doses producing paranoia, panic attacks and in extreme cases, death from drug induced excited delirium. Sergeant Taranu related the problem with synthetic drugs like flakka is that the drug makers tweak the chemical makeup to skirt existing laws. “They have more information on this new drug than we do so by the time we play catch up they’ll be something newer and then we’ll have to play catch up again,” said Taranu. Epidemiologist Jim Hall relates that most of the granular crystals contain the synthetic stimulant drug α -PVP, although other examples contain ordinary methamphetamine mixed with other drugs including heroin and cocaine. Hall related in 2013 there were less than 60 cases of flakka that showed up in Florida crime labs, but by 2014, that number had risen to more than 670. Hall added flakka is popular among the 18 to 30 year age group and is associated with dance/music clubs. He compares its’ rise to ecstasy in the 1990’s. Here is MDPV vs. α -PVP



α -PVP: “Flakka” or “Gravel”

- ✦ April 2015 ISP report: 648 lab submissions of α -PVP
- ✦ 2012 DEA alert 2014 Fed. Sch. I - analog of MDPV.
- ✦ Rocky looking “Bath Salt”- \$5 per hit.
- ✦ Dose 20-30 mg 6 hour high, overdose produces panic, excited delirium deaths.



The nationally, police crime labs have seen α -PVP (alpha-pyrrolidinopentiophenone) being submitted by local police officers as a new form of “Bath Salt Cocaine.” α -PVP is a synthetic stimulant/hallucinogen drug in the cathinones family and is closely related in chemical structure to the original bath salt, MDPV. The substitution of α -PVP for the banned MDPV version of bath salt cocaine is just one of 38 analogs of pyrovalerone, some of which appear to be 30 times more potent than cocaine with duration of effects greater than 8 hours. Although there is little published research on α -PVP, the DEA filed an emergency scheduling of the drug in February, 2014 as it is chemically related to MDPV and falls under the legal definition of the federal drug analog act. Other analogs recently banned include 4-MEC and 3-FMC*

User reports published on pro-drug web sites (<http://bluelight.ru>) relate that the drug produces a more euphoric stimulating effect than MDPV however, it is easy to overdose on the drug. Snorting 20-30 mg up the nose can produce a 6-hour intoxicated effect, however, re-dosing produces extreme anxiety and psychotic behavior which can lead to excited delirium death. Standard hospital urine drug screening tests will not detect α -PVP.

*http://www.dea diversion.usdoj.gov/fed_regs/rules/2014/fr0128.htm

4-MEC: “Shrimp” or “Meck”

4-MMC mephedrone replacement



**Shooting “bath salts”
skin death.**

- ✦ Often sold as “Molly.”
- ✦ Related to “Bath Salts” Molly/meth type effects.
- ✦ Israel, Europe 2009, US in 2010, Federal schedule March, 2014.
- ✦ Illegal now in Kentucky.
- ✦ High doses cause “Excited Delirium” and can cause death.

“Meck,” frequently found in seizures of “Molly,” is 4-methyl-N-ethylcathinone (4-MEC). This synthetic drug was first produced in Israel in mid-2000 as a gray-market recreational drug and became popular in Europe in 2009. The street name “shrimp” originated in Europe possibly because the effects do not last as long as the drug it replaced, 4-MMC, mephedrone, when it became illegal in Europe. In the U.S., 4-MEC is also referred to as “Meck.” Frequently snorted, the drug can also be taken in pill form and even injected. In its pure form, 4-MEC is a white powder but can be combined with a filler and binding agent to form Ecstasy-type pills. The usual dose is about 150 mg with 300 mg considered an overdose, although there is little scientific research on the drug. Users report the drug produces a pleasant stimulant-drug type euphoria that has been described as a cross between ecstasy and cocaine. Many users describe a very strong urge to re-dose as the drug effects wear off after two hours but find that larger doses are needed with each re-dose. There have been several reported deaths in Europe but none in the U.S.

On March 7, 2014, the D.E.A. placed 4-MEC on an emergency two-year ban after the drug began to appear in over a dozen states including Kentucky. The popularity of 4-MEC appears to be driven by the earlier federal ban on 4-MMC. In 2015, 33-states have either an emergency bann of 4-MEC or have formal criminal legislation against the sale of 4-MEC including Kentucky.*

**http://www.deadiversion.usdoj.gov/fed_regs/rules/2014/fr0128.htm

Overdose Video Clip



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The overdose effects of so called “Bath Salts,” the new designer stimulant drugs being sold as “research chemicals” can produce bizarre behavior and “drug-induced excited delirium.” High doses are associated with a paranoia, frightening hallucinations, and extreme panic attacks which can lead to extreme agitation and violent behavior. Left untreated, the user frequently suffers from dehydration, kidney failure, multi-organ failure, and death.* The effects of some of these new designer stimulant drugs have been reported to last up to three days after last use. In this mental and physical state, standard police pain-compliance techniques are not only ineffective, but actually can cause more injuries and loss of control of the situation. It is strongly recommended not to strike, pepper-spray, or Taser these subjects. Bath salts overdose should be treated with benzodiazepines (Ativan) and low-dose antipsychotics (Haldol) administered by para-medics in the field as the subject is restrained by hand at the arms and legs.** Transport to the hospital should be immediate in a up-right, seated position in full restraints. Paramedics should be ready for rescue breathing during the transport.

***Excited delirium following use of synthetic cathinones (bath salts),” Pender Et Al, August 13, 2012, Journal of General Hospital Psychiatry.*

***http://www.medscape.com/viewarticle/774566#vp_2*

Excited Delirium Research

Warning Signs:

1. Drug use & obesity.
2. High temperature.
3. Psychotic behavior.
4. Strength/pain sensation.
5. Labored breathing.
6. Death within 1-hour of a struggle.
7. Adrenaline heart failure suspected.

Response:

- ✦ Avoid prone position.
- ✦ Never compress chest.
- ✦ Seated position best.
- ✦ Hospital not jail lock-up.
- ✦ Oximetry, cardiac, and glucose monitoring.
- ✦ Ativan® or other benzo.
- ✦ Ketamine hcl?

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The term “excited delirium” became popularized in 1984 but the medical phenomenon has been medically documented since 1849 as “Bell’s mania”. With the advent of synthetic stimulant drugs that can be 20-times more potent than cocaine, emergency first responders are seeing an increase in drug-induced excited delirium. Research studies have found excited delirium is usually associated with obese male drug users who had used stimulants or hallucinogens. First responders typically observe an individual who is, at first, agitated and then becomes grossly psychotic. Attempts to control or restrain the individual often leads to violent resistance with the individual displaying an apparent increase in strength and a loss of pain sensation. One study found it takes an average of four police officers to restrain an out-of-control individual displaying excited delirium. Shortly after the resistance has ceased, the excited delirium victim will display labored breathing and increased body temperature (an average of 104°F). Most deaths occur within 1-hour of the onset of the psychotic resistance and present as a “flat-line” (asystole) with less than a 2-percent survival rate. Most die before reaching the hospital. The cause of death is suspected to be abnormal changes in dopamine receptors in the brain and high levels of adrenaline during the resistance which leads to heart stoppage.

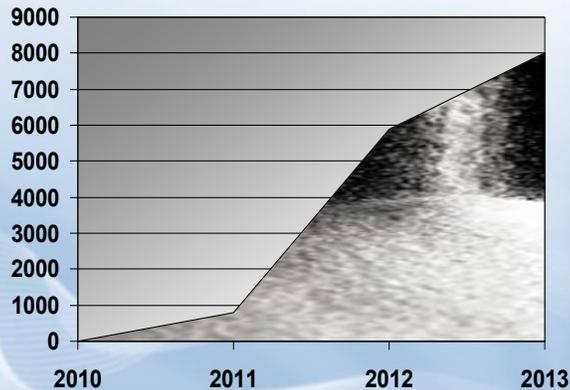
It is recommended to place the individual in a seated or semi-reclined position, treat with Ativan® or other tranquilizers and transported to a hospital, not a jail. EMS should monitor blood-oxygen and glucose levels carefully as cessation of resistance and labored breathing are seen just before sudden death.*

**“Cocaine, excited delirium & sudden unexpected death” Sztajnkrycer, M.D., et al, April 1, 2005, EMS World.*

March 2014 DEA Emergency Filing

10 synthetic cathinones:

4-MEC
4-MePPP
α-PVP
Butylone
Pentedrone
Pentylone
4-FMC
3-FMC
Naphyrone
α-PBP



8,000 reports from 41 states

The National Forensic Laboratory Information System registered over 8,000 reports from state and local forensic laboratories identifying these 10 synthetic cathinones seized by police from January 2010 to November 2013 from 42 states. Additionally, large seizures of these 10 synthetic cathinones have been intercepted at every U.S. boarder entry point. These drugs have been associated with hospitalizations and deaths including a 24-year-old female who died after taking two capsules of "Ecstasy" but was subsequently confirmed to be a mixture of methylone and butylone. And a 21-year-old male also ingested butylone. Both died of serotonin syndrome, severe increases in heart rate and blood pressure leading to shock.

On January 28, 2014 (effective March 2014), the D.E.A. placed the following ten designer drug cathinones into an emergency criminal ban: (1) 4-methyl-N-ethylcathinone (4-MEC); (2) 4-methyl-alpha-pyrrolidinopropiophenone (4-MePPP); (3) alpha-pyrrolidinopentiophenone (alpha-PVP); (4) 1-(1,3-benzodioxol-5-yl)-2-(methylamino)butan-1-one (butylone); (5) 2-(methylamino)-1-phenylpentan-1-one (pentedrone); (6) 1-(1,3-benzodioxol-5-yl)-2-(methylamino)pentan-1-one (pentylone); (7) 4-fluoro-N-methylcathinone (4-FMC); (8) 3-fluoro-N-methylcathinone ("3-FMC"); (9) 1-(naphthalen-2-yl)-2-(pyrrolidin-1-yl)pentan-1-one (naphyrone); and (10) alpha-pyrrolidinobutiophenone (alpha-PBP).^{*} Many states will soon follow the federal government ban, which will expire within two years if Congress does not act.

**The full text is available on line at:
http://www.dea.gov/diversion/usdoj/fed_regs/rules/2014/fr0128.htm*

2014 Analogs Avoid Drug Laws

- ✦ Over 86% of the current synthetics sold are NOT scheduled under state laws!
- ✦ Watch for STS-135 and MAM-2201 to move-up.
- ✦ New analogs are being developed as soon as the current drugs are criminalized.

Synthetic Cannabinoid	Number	Percent
XLR11	11,273	65.38%
UR-144	1,243	7.21%
AM-2201	884	5.13%
PB-22	668	3.87%
5F-PB-22	544	3.16%
5F-AKB48	417	2.42%
AKB48	285	1.65%
JWH-018 (AM-678)	173	1.00%
JWH-122	125	0.73%
JWH-250	118	0.68%
JWH-210	111	0.64%
STS-135 ←	84	0.49%
MAM-2201 ←	64	0.37%
JWH-081	55	0.32%
AB-FUBINACA	26	0.15%
Other	1,172	6.80%
<i>Total Synthetic Cannab²</i>	17,242	100.00%

March 2014 NFLIS Table

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After the 2012 criminal scheduling of 13 cannabinoid activating drugs related to K2/Spice type JWH-018 products, manufacturers rushed to produce closely related chemicals to market to replace the banned synthetic drugs. Based on a March, 2014 Drug Enforcement Administration report from the National Forensic Laboratory Information System, 86-percent of the newest synthetic cannabinoid activating drugs found of the streets today are not covered under Kentucky law as a controlled substance. With recent deaths related to the most popular of these next generation synthetics, XLR-11 and UR-144, the legislature is sure to quickly add these two drugs to the schedule of controlled substances. However, two of the newest synthetics are posed to replace XRR-11/UR-144 once the ban goes into effect.

STS-135 (*N*-(adamantan-1-yl)-1-(5-fluoropentyl)-1*H*-indole-3-carboxamide) is beginning to appear in police crime labs and is not scheduled under federal or state law. The structure of STS-135 is the terminally-fluorinated analog similar to how AM-2201 is the terminally-fluorinated analog of JWH-018 found in K2/Spice. No information regarding the effects of this new designer drug have been reported by university or law enforcement researchers either here or in Europe.

MAM-2201 is a hybrid of two known cannabinoid synthetics, JWH-122 (illegal under Kentucky law) and AM-2201 (not scheduled in Kentucky), both of which had previously been used as active ingredients in K2/Spice-type synthetic cannabis products. As is the case with STS-135, little scientifically is known about MAM-2201 as it has never been reported in the scientific or police research studies. It was first detected in the Netherlands and Germany in June of 2011 before appearing in the United States in the 2014 report.

New Designer Drugs: APICA & APINACA



- ✦ *Dead Man Walking & Crazy Clown* “potpourri.”
- ✦ 2013 “K2/Spice”-type drug.
- ✦ Hundreds hospitalized, three deaths.
- ✦ Seizures, kidney failure, vomiting, aggression, racing heart beat, comma.
- ✦ Related to AKB-48, **not** listed as a illegal drug in Kentucky.

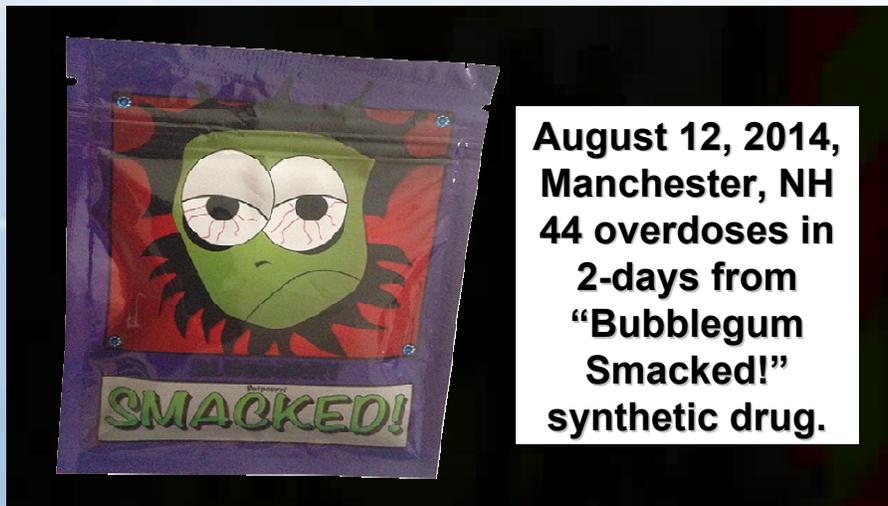
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In August, 2013 the Georgia Poison Center reported that 22 people had been hospitalized after smoking a new synthetic drug found in two commercial produced “novelty potpourri” products sold as “Dead Man Walking” and “Crazy Clown.” The victims displayed seizures, vomiting, racing heart beat, and kidney failure. Several displayed very aggressive behavior and hallucinations, while other were unresponsive. Five patients were placed in I.C.U. in critical condition after they stopped breathing. One suffered a heart attack, but all survived. In September, the state of Colorado reported 75 people were severely ill after smoking the same commercial products, primarily in the Denver and Colorado Springs area. Three deaths were associated in the Colorado cases.

Researchers found the products contained two new designer drug analogs closely related to the now banned AKB-48. Known as APICA and APINACA, these chemicals were first discovered by Japanese scientists in 2012 among illicit smoking herbs. Quickly banned in Japan, these new drugs have swept across the world appearing in New Zealand and Europe as well as across America.

On May 16, 2013, the U.S. Drug Enforcement administration filed an emergency two-year ban on three new drugs: XLR-11, UR-144, and AKB48. The two new drugs, APICA and APINACA are designer drug relatives of AKB48 and are not specifically illegal under Kentucky law.

2014 Emergency Health Ban: ADB-FUBINACA



On August 12, 2014 New Hampshire Governor Maggie Hassan declared a medical state of emergency after 44 Manchester residents were rushed to area hospitals in sever convulsions after smoking Smacked potpourri—the newest K2/Spice synthetic drug masquerading as potpourri.* The state of emergency authorized police to close down stores selling Smacked! and to revoke the city business license for selling a harmful product. A federal ban on synthetic marijuana products was enacted in 2012, and later that year New Hampshire joined more 40 other states in adopting similar bans, but such laws have proven difficult to enforce.

New Hampshire State Police Forensic Laboratory found Smacked! contained the research chemical ADB-FUBINACA. This cannabinoid activating drug first appeared in Japan in 2013 before showing up in America one year latter.**

This comes after 3 deaths and 75 drug overdoses in the Denver/Colorado Springs area from abusers smoking “Crazy Clown” and “Dead Man Walking” synthetics. What surprised Colorado officials is legalizing recreational marijuana was supposed to eliminate the need for drug users to abuse dangerous synthetics just to avoid arrest because they were legal. Experts now believe, as is the case with powerful batches of heroin, drug abusers will always seek out a substance that is perceived as more potent even at the risk of harming themselves.

**<http://abcnews.go.com/Health/synthetic-pot-smacked-prompts-state-emergency-hampshire/story?id=24995533>*

****Two new-type cannabimimetic quinolinyl carboxylates, QUPIC and QUCHIC, two new cannabimimetic carboxamide derivatives, ADB-FUBINACA and ADBICA, and five synthetic cannabinoids detected with a thiophene derivative α -PVT and an opioid receptor agonist AH-7921 identified in illegal products," July 2013, Journal of Forensic Toxicology.*

“N-Bomb” - 25I-NBOMe & analogs



- ✦ Nov. 15, 2013 DEA scheduled
- ✦ Blotter, liquid, crystal, sold as LSD or Molly.
- ✦ Analog of 2-CI, more potent than LSD, several deaths.
- ✦ Many analogs: 25b, 25c, 25h.
- ✦ Kentucky banned 2013.
- ✦ Delayed on-set can lead to overdose, panic attack, over heating, heart and liver failure.

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Several reports in early 2014 from Chicago area high school and adult drug rehabilitation counselors of a new street drug called “N-Bomb” have been received. It is believed the drug is “25I-NBOMe” which is closely related to the Ecstasy/Molly relative 2-CI (sometimes called “smiles”) but is reported to be 16-times more potent. The drug was first produced in 2003 by scientist Ralf Heim at the Free University of Berlin to study cells but in 2010 began to show up as a new designer street-drug in Australia, and then quickly spread to Europe and, most recently, in America. The I.S.P. toxicology laboratory system began to track 25I-NBOMe in June of 2012 with the drug appearing at labs across the state. The drug produces intense hallucinations, reportedly greater than LSD, but it also stimulates rapid heart rate, high blood pressure and internal heat production. Several over-dose deaths have been reported across the country as hospitalizations from the effects that can last for days.* The drug can appear as a crystalline powder, liquid, or as felt-paper similar to “blotter acid”. When taken in the blotter-paper form, the drug reportedly leaves a bad metallic taste in the mouth and numbness of the tongue, something LSD does not produce. Another difference with LSD is the delayed onset of the full effect of the drug, which can trick users into using more, only to result in an overdose when the full effect takes hold. Also unlike LSD, N-Bomb can produce uncontrollable, bodily shakes, thrashing of limbs, and teeth grinding. On November 15, 2013 the DEA placed 25I-NBOMe on a two-year emergency schedule of criminally banned drugs. Virginia, Louisiana, and Florida have also scheduled the drug, but it is not specifically listed under Kentucky criminal law.

*<http://www.chron.com/news/houston-texas/article/Dangerous-designer-drug-hits-the-streets-3886068.php>

N-Bomb Death—Case Study



Samuel Motsay, 16.

- ✦ **May 11, 2014 Greenwood, Ind.**
- ✦ **N-Bomb O.D. death, 2 survived.**
- ✦ **Zachary Catron, 24 of Indy arrested for selling the drugs.**
- ✦ **John Romaine, 18, died of heart failure (excited delirium).**
- ✦ **22 deaths nationwide, many are serotonin shock syndrome.**

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The new designer synthetic drug 25-I-NBOMe, called “N-Bomb” on the streets has appeared in Indiana in several high profile drug deaths involving teenagers. Samuel Motsay, age 16, and two school friends from Greenwood, Indiana (just south of Indianapolis) purchased N-Bomb supplied by Zachary Catron, age 24 of Indianapolis who had already been sentenced to 20-years in prison for drug dealing. However, all but two years were suspended! The cause of death was found to be heart failure. The other two friends survived the event. Police officers initially told newspaper reporters they had never heard of the drug “N-Bomb” until Indiana State Police toxicology labs confirmed the drug was found at the scene by police.*

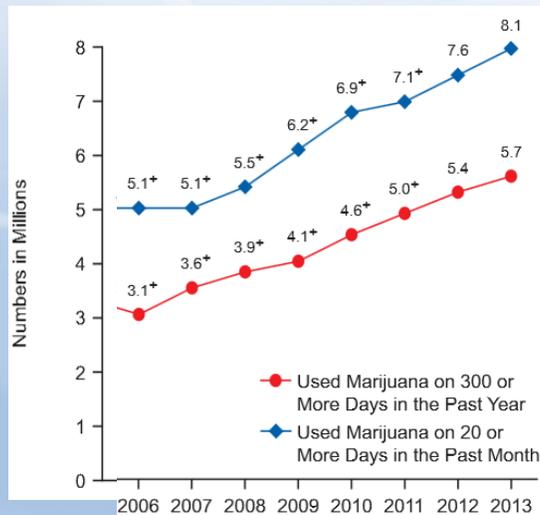
Earlier, on March 28, 2014, John Romaine, age 18, of Hamilton County, Indiana (north of Indianapolis) took N-Bomb with three school friends and, like Motsay, died of cardiac arrest. Romaine’s brother told newspaper reporters, “My brother had a bit of a crazed, confused look” just before he died. In October, 2014, Emily Valentine, age 15, died of serotonin shock syndrome after taking one \$5 square of N-Bomb.**

St. Vincent Carmel Hospital emergency room physician Dr. Marcus Hendry told reporters that N-Bomb is more powerful than the LSD it is often compared to. “They might experience agitation, hallucination, might get high fever, muscle injury, kidney failure, all the way to persistent seizures that may require the induction of a medical coma or even death as a result of persistent seizures.”

*<http://fox59.com/2014/05/15/second-suspect-in-custody-following-teen-nbome-death/>

**<http://raynham.wickedlocal.com/article/20141014/NEWS/141018247/12423/NEWS>

Sept. 2014 SAMHSA Report:



- Age 12 or older:
- ✦ Daily marijuana use continues to climb.
- ✦ Smoked 20 out of 30 days: 8.1 million.
- ✦ Black: 10.5
- White: 9.5
- Hispanic: 8.8
- Asian: 3.1

The September, 2014 “National Survey on Drug Use and Health” published by the U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration’s Center for Behavioral Health Statistics and Quality, found that national marijuana use rates continue to climb. In the most dangerous category, known as “daily or nearly daily marijuana smoking,” the number of persons age 12 or older who smoked marijuana 20 days out of the past month increased from 5.1 million in 2006 to over 8 million in 2013. The number who said they had smoked 300 days in the past year increased from 3.1 million users to nearly six million users in 2013. Marijuana was the most commonly used illicit drug in 2013. There were 19.8 million past month users in 2013 (7.5 percent of those aged 12 or older), which was similar to the number and rate in 2012 (18.9 million or 7.3 percent). The 2013 rate was higher than the rates in 2002 to 2011 (ranging from 5.8 to 7.0 percent). Marijuana was used by 80.6 percent of current illicit drug users in 2013. About half (48.6 percent) of youths aged 12 to 17 reported in 2013 that it would be “fairly easy” or “very easy” for them to obtain marijuana if they wanted some.

Demographically, whites, blacks, and Hispanics used at similar rates. Only Asians had a significantly lower marijuana use rate. Geographically, the rate of current illicit drug use among persons aged 12 or older was 9.6 percent in large metropolitan areas, 9.8 percent in small metropolitan areas, and 7.8 percent in rural areas.*

*<http://www.samhsa.gov/data/NSDUH/2013SummNatFindDetTables/NationalFindings/NSDUHresults2013.pdf>

February, 2015 Report: Kentucky heroin deaths remain high

**31.9% of drug
deaths are heroin.
Increased from 143
to 230 deaths.**



- ✦ Heroin seizures nearly doubled in Kentucky.
- ✦ Reduction in R_x narcotics blamed.
- ✦ Heroin half the price of OxyContin pills.

Heroin Hot Spots:
Bell, Clinton, Breathitt,
Floyd, Perry, Harlan.

60 grams of Black Tar Heroin: \$3,000

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The February, 2015 report issued by the Kentucky Office on Drug Police Control documents the rapid increase on heroin abuse in the state over the past three years. The 2014 report stated heroin overdose deaths **increased by 650 percent last** year and the 2015 trend appears to be continuing. “During the first nine months of 2014, at least 723 Kentucky deaths were attributed to a drug overdose, with heroin involved in 27%.”*

The February 2015 reports notes the driving factor related to the increase of heroin deaths:

“Police in Louisville and the Northern Kentucky suburbs of Cincinnati said they began seeing more heroin as early as four years ago, but it was in the last 12 months that heroin had increased dramatically. A growing number of young people who began abusing expensive prescription drugs are switching to heroin, which is cheaper and easier to buy. The reason may come down to basic economics: illegally obtained prescription pain killers have become more expensive and harder to get, while the price and difficulty in obtaining heroin have decreased. An 80 mg OxyContin pill runs between \$60 to \$100 on the street. Heroin costs about \$9 a dose. Even among heavy heroin abusers, a day’s worth of the drug is cheaper than a couple hits of Oxy.”

On a per capita basis, the top 6 Kentucky counties for heroin deaths are: Bell, Clinton, Breathitt, Floyd, Perry and Harlan.

*Full report is available at:<http://tinyurl.com/o7ppat6>

Video Clip: Black Tar Heroin



This video clip is from the Steven Okazaki documentary titled *"Black Tar Heroin: The Dark End of the Street"* and was featured on HBO. Filmed over a three-year period in San Francisco, teenagers (as young as 14) are shown in a hopeless loop of injecting heroin and working the streets as prostitutes. In the clip, a close-up view of black tar heroin is shown, along with mixing it into a usable solution and finally injecting the drug into the neck.

"Black tar" heroin is produced in Mexico, may be sticky like roofing tar or hard like coal, and its color may vary from dark brown to black. The color and consistency of this type of heroin result from the crude processing methods used to illicitly manufacture this substance.

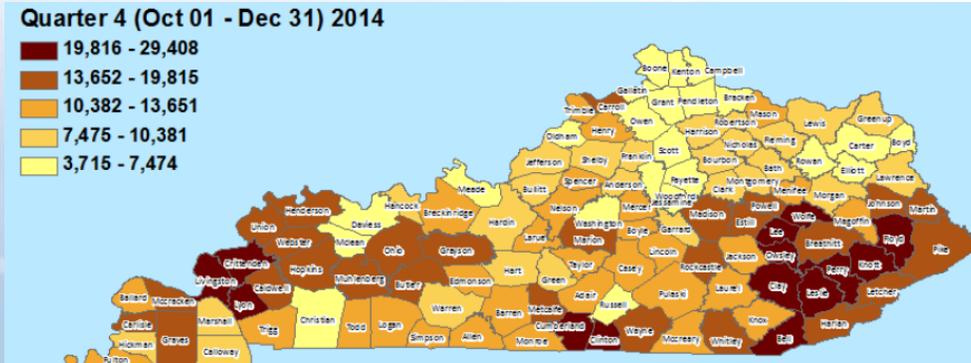
Among high school students surveyed as part of the Monitoring the Future Study, 1.6 percent of eighth graders, 1.5 percent of tenth graders, and 1.5 percent of twelfth graders reported using heroin at least once during their lifetimes. Regarding the ease by which one can obtain heroin, 15.6 percent of eighth graders, 18.8 percent of tenth graders, and 27.9 percent of twelfth graders surveyed reported that heroin was "fairly easy" or "very easy" to obtain. In addition to the effects of the drug itself, users who inject heroin also put themselves at risk for contracting HIV, hepatitis B and C, and other blood-borne viruses. About 1 percent of eighth graders, 0.9 percent of tenth graders, and 0.7 percent of twelfth graders reported that they have injected heroin at least once during their lifetimes.

Heroin abuse in Kentucky has increased in 2014 while prescription narcotics abuse has fallen compared to 2013.

Kentucky Rx Abuse Hot Spots

Quarter 4 (Oct 01 - Dec 31) 2014

- 19,816 - 29,408
- 13,652 - 19,815
- 10,382 - 13,651
- 7,475 - 10,381
- 3,715 - 7,474



Top Vicodin 4th Qt. 2014 by Zip Code Map

Vicodin is top Rx drug in Kentucky: 37%.

*“Kentucky teen abuse of Rx drugs has dropped dramatically.”
Feb. 2014 KY ODCP*

Data from the 4th Quarter 2014 Kentucky Prescription Drug Report (KASPER)* from the Kentucky Office of Drug Control Police found: the misuse, abuse and illegal sale of prescription drugs continues to be a significant problem in Kentucky. The February 2014 executive summary of the Kentucky Office on Drug Control Police states: “. . . first time in over a decade controlled substance dispensing, has dropped significantly. Additionally, hydrocodone combination products were rescheduled from CIII to CII. The percentage of Kentucky teens using prescription drugs for off-label purposes has dropped dramatically over the past four years ”

The above map, broken down by Kentucky Zip Codes, shows the relative numbers of Vicodin prescription narcotic prescriptions written per 100,00 population in the 4th quarter of 2014. Statewide, The most written prescription was for hydrocodone (Vicodin, Lortab, Norco) accounting for 37 percent of all prescriptions (down from 42% just the year before). OxyContin (oxycodone) which showed a 11.6% drop.

The good news in Kentucky is tempered by the following statement from the report, teen prescription narcotics abuse is switching to heroin from Vicodin and OxyContin because heroin is easy to obtain and is much cheaper than prescription narcotics. Heroin can be purchased in Kentucky for only \$9 per dose so an entire day’s worth of heroin is less expensive than a single dose of OxyContin.

*The full report is available at: <http://tinyurl.com/ofphhuu>

2014 Case Study & Recommendation: “Police Narcan Program.”

- ✦ Narcan nasal spray displaces narcotics in brain receptors.
- ✦ Reverses overdose if given within ten minutes.
- ✦ 1,244 officers trained with \$40K from County Health Dept.
- ✦ 2-saves: Villa Park (sheriff), Hanover Park PD.
- ✦ Quincy, MA 221 saves out of 221 narcotics overdoses!



State liability legal shield for non-medical emergency use

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Narcan® is the trade name for naloxone, a chemical related to OxyCodone that does not provide a narcotic high but rather displaces any narcotic that is sedating the respiration regulating centers of the brain. Narcan use by non-medical personnel to reverse narcotic overdose began in 1996. A recent nationwide survey of 50 non-medical programs found they provided training and distribution of Narcan to more than 5,000 volunteers, which resulted in 10,171 narcotic overdose reversals. Police use of Narcan began in October of 2010 in Quincy, Massachusetts, a Boston suburb of 99,000 which had experienced 99 heroin overdose deaths in just 18 months. Since the start of the program, Quincy police have used Narcan nasal spray 221 times and reversed 211 narcotics overdoses. Today, many police agencies in New England, especially New York state, carry Narcan nasal spray.

Illinois Public Act 96-0361 enacted in 2010 amends 20 ILCS 301/5-23, makes it legal for non-medical persons to administer Narcan to reverse narcotic overdose. The law authorizes the Department of Alcoholism and Substance Abuse (DASA) to permit programs within the state to distribute Narcan provided they are approved by DASA. Starting with a pilot program in November of 2013, DuPage County Health Department has trained and supplied Narcan nasal spray kits to 1,244 police patrol officers and looks to expand the program to over 2,000 police officers including college police, park police and forest preserve district rangers. Police are trained to identify the signs of narcotic overdose and to spray half the dose up each nostril of the subject. Narcan has no adverse effects if given to a non-narcotic user. For information on setting up a program outside of DuPage County contact Richard Weisskopf at (312) 814-3840, or via e-mail at: Richard.Weisskopf@Illinois.gov

Counseling Recommendations:

- ✦ Always ask about “synthetic drug use” during intake.
- ✦ Include a ban on “all synthetic drugs” and “any legal intoxicants”.
- ✦ Document unusual behavior/mental state.
- ✦ Document unusual physical conditions, esp. pupils.
- ✦ Recommend special urine testing based on reasonable suspicion.



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The National Drug Courts Resource Center makes the following recommendations in response to the growing abuse of synthetics drugs:

- 1). Counselors should include a comprehensive ban in their policy with clients possession and use of all “synthetic drugs” “herbal intoxicants” and “intoxicating compounds” whether legal or illegal.
- 2). Persons in drug counseling or screening should be asked about their prior and current use of K2, Spice, “bath salts” or any other herbal smoking product or “legal drug” use during their initial interview.
- 2) If on juvenile probation for drug use, court staff should increase unannounced visits to document under-the-influence and conduct searches of the probationer’s home and car for signs of use.
- 3) Special targeted urine drug testing should be ordered when there is reasonable suspicion that the probationer is using synthetic drugs or other exotic intoxicants.
- 4) Courts should consider the use of these new synthetic drug and herbal intoxicants as a violation of probation and an attempt to circumvent the prohibition against drug use.

Keep in mind, the synthetic drug trend is likely to continue to spawn new designer drug analogues, many of which will not be detectable even by specialty urine drug testing. Therefore, *a negative drug screening test does not mean the subject is drug free.*

Discussion . . .

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