Methamphetamine and the CMEA

Pharmacy Diversion Awareness Conference
Denver, Colorado – August 2, 2014

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Synthetic Drugs and Chemical Section
U.S. Drug Enforcement Administration
Colorado

Meth Lab Seizures by Year

Source: NSS-EPIC
Query Date: July 1, 2014
U.S. Methamphetamine Production

• U.S. production of methamphetamine increased dramatically over past two decades

• Small Production Capacity Labs (SPCLs) emerge; also known as “One Pot Method” and “Shake & Bake Labs” (gram to multi-gram methamphetamine yields)

• 2004 - record number of labs seized in U.S.
  — (2004 - 15,790)
2005 - US Addresses
Methamphetamine Production

• Congress passes Combat Methamphetamine Epidemic Act of 2005 (effective March 2006)
  – The CMEA restricts the sales of pseudoephedrine and ephedrine in the U.S.
  – In 2006, the U.S. sees a 53% reduction in methamphetamine labs from the previous year
    • 2005 – 10,678 labs    2006 – 5,027 labs
  – 2007 a decrease of another 23%
What is the purpose of the CMEA?

To limit the domestic manufacture of methamphetamine by placing restrictions on the sale of Pseudoephedrine, ephedrine and phenylpropanolamine at retail outlets.
CMEA - Point-of-Sale Requirements

• Daily sales limit 3.6 grams per day per customer
  – 146 x 30-mg tablets of Pseudo HCl
  – 73 x 60-mg tablets of Pseudo HCl
• Buyers cannot purchase more than 9 grams of PSE over 30 day period
• Sold in “blister” pack only – cannot be sold in bottles
CMEA - Point-of-Sale Requirements

- PSE behind-the-counter OR locked file cabinet on open floor
- Maintain written or electronic log book of PSE sales
  - Drug product name -- Name & address of buyer
  - Quantity -- Date & time of sale
Exemption for 2 pill packages up to 60-mg PSE (“airport exception”)
- Buyer presents Photo ID issued by gov’t
  - Seller checks name [but not signature]
- Buyer signs logbook
  - Logbook contains notice of criminal penalties under 18 U.S.C. 1001, including max. fines and penalties
  - Seller retains logbook at least 2 years
Initial CMEA Results

In 2006, the U.S. sees a 53% reduction in methamphetamine labs from the previous year (2004 15,790)

• 2005 – 10,693 labs
• 2006 – 5,031 labs
• 2007 – 3,876 labs
CRIMINALS ADAPT TO CMEA

Change is the only constant in the drug world.
Smurfing
2008 Clandestine Lab Seizures Increase

- Criminal Subculture learns to circumnavigate CMEA
- “Smurfers” emerge to supply clandestine lab cooks with pseudoephedrine
  - Individuals go to multiple stores purchasing amounts allotted by the CMEA
  - Multiple identifications used to purchase PSE
  - Small Production Capacity Labs increase (labs only)
    - (2010 – 10,511 labs) *(2011 – 9,153 labs)
    - *(2012 – 8,385 labs)

* Due to the exhaustion of Federal funds provided by the Department of Justice, Community Oriented Policing Services (COPS), to the DEA, for cleaning up methamphetamine laboratories, the number of methamphetamine labs that have been reported to EPIC does not necessarily reflect the total number of labs that have been discovered/seized, by law enforcement for years 2011 and 2012.
What is a Smurf?

- A smurf is someone who buys small quantities of ingredients (e.g., PSE, ice packs, lithium, matches, iodine), from several different locations, in order to manufacture, or more likely, assist in the manufacture of methamphetamine.

- Multiple IDs used to buy PSE and EPH
2008 Clandestine Lab Seizures Increase

• Criminal Subculture learns to circumnavigate CMEA
• “Smurfers” emerge to supply clandestine lab cooks with pseudoephedrine
  – Individuals go to multiple stores purchasing amounts allotted by the CMEA
  – Multiple identifications used to purchase PSE
  – Reported Small Production Capacity Labs increase (labs only)
    • (2008 – 5,417 labs) (2009 – 8,516 labs)
    • (2010 – 10,519 labs) *(2011 – 9,158 labs)
    • *(2012 – 9,121 labs) **( 2013 – 7,909 labs)

* Due to the exhaustion of Federal funds provided by the Department of Justice, Community Oriented Policing Services (COPS), to the DEA, for cleaning up methamphetamine laboratories, the number of methamphetamine labs that have been reported to EPIC does not necessarily reflect the total number of labs that have been discovered/seized, by law enforcement for years 2011 and 2012.
Methamphetamine Facts

• Schedule II controlled substance

• Methamphetamine is the most widely abused, domestically produced synthetic drug in the United States.

• Has a high rate of addiction, a low rate of sustained recovery, and is relatively inexpensive to manufacture.
The U.S. methamphetamine threat is a two prong problem:

- Methamphetamine manufactured by Mexican Trafficking Organizations (large “Super Labs” in Mexico & liquid conversion labs the U.S.)

- Small Capacity Production Labs (SCPLs) (based in the U.S.)
Methamphetamine from foreign trafficking organizations
March 2007, $205 Million+
Methamphetamine Seizures Along the U.S. SW Border (Kilograms)

Source: NSS-EPIC
Query Date: July 1, 2014

Statistics are for Texas, New Mexico, Arizona and California.
P2P Route Affects Potency

• Ephedrine and Pseudoephedrine-based routes always produce “potent” meth (d-meth only)
  – Predominant method prior to 2006
  – Still used today in small, domestic labs (one pot, Smurfing)

• P2P-based routes form “less-potent” methamphetamine
  – Half of the sample is d-meth and half is l-meth
  – l-meth 2 to 10 times less potent than the d-isomer
  – At high doses, l-meth stimulant effects are similar to d-meth but are short lived (therefore, l-meth not preferred by users)*

P2P vs. PSE/EPH

Percentage of Samples

- **P2P Method**
- **Phosphorus-Iodine Method**

<table>
<thead>
<tr>
<th>Period</th>
<th>P2P Method</th>
<th>Phosphorus-Iodine Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Q to 3Q-2007</td>
<td>1%</td>
<td>82%</td>
</tr>
<tr>
<td>1Q-2008</td>
<td>2%</td>
<td>64%</td>
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<tr>
<td>2Q-2008</td>
<td>11%</td>
<td>58%</td>
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<tr>
<td>3Q-2008</td>
<td>12%</td>
<td>44%</td>
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<tr>
<td>4Q-2008</td>
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<td>47%</td>
</tr>
<tr>
<td>1Q-2009</td>
<td>13%</td>
<td>49%</td>
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<tr>
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<td>69%</td>
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<tr>
<td>1Q-2014</td>
<td>94%</td>
<td>1%</td>
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</tbody>
</table>
Domestic Methamphetamine
Domestic Meth

- The “New” Methamphetamine
  - 3 to 4 times easier to make and 3 to 4 times more potent than the old drug
  - Common chemicals purchased over the counter
  - 1 to 4 hours to cook a batch (old method took 20 hours)
  - Accounts for 98% of all reported clandestine labs.
Let’s Make Meth!

I’M MAKING METH
What’s the big deal with Pseudoephedrine? The answer is basically **One Oxygen Molecule**. The molecular similarity of pseudo to meth is so close that using today’s common methamphetamine manufacturing methods (“Shake & Bake” Red-Phosphorus or Anhydrous / Nazi method) simply reduce the molecular structure of pseudoephedrine/ ephedrine by one Oxygen molecule to create Methamphetamine.
Ingredients for One Pot Method

• Combine
  – PSE tablets – whole or ground up
  – Solvent – ether, camp fuel
  – Lithium (Batteries)
  – Sodium Hydroxide
  – Ammonium Nitrate (cold packs)
  – Water

• Exothermic Reaction
  – Filter off liquid
  – Use HCl generator to crash out Meth
Small Production Capacity Lab (SPCL) aka “One Pot”

• Utilize 16 to 20 ounce, or 2 liter drink bottles as the vessels to synthesize the drug

• Only produce gram to multi-gram quantities of methamphetamine
One-Pot labs are EXTREMELY Dangerous

- One-Pot labs extremely Dangerous
- Clan lab stats increase in many states
- Reactive to water/moisture
- Meth labs catching fire at a higher rate
- 50% Failure (if it hasn’t – it will catch fire
“One Pot” Damage
What do “One Pot” Lab sites look like?
SPCL "One Pot" - waste

- Generate toxic waste
  - 1 lb of Meth Produced
  - Yields 5-6 Pounds of Toxic Waste
WHERE CAN YOU GET METH MANUFACTURING MATERIALS?
Where can you find Meth Labs?
Houses

We have encountered labs in...

Barns

Storage Units

"Vacant" Buildings
We have encountered labs in...
Methamphetamine Laboratories are Endangering our Communities - Florida & Alabama

“Meth lab explodes inside South Jacksonville apartment”

“Janitor finds meth lab in Walmart bathroom”

August 17, 2011 The Florida Times Union

WHNT April 11, 2012
Boaz, Alabama
Methamphetamine Laboratories are Endangering our Communities
Washington, D.C & Nation

“Meth Lab Explosion Rocks Luxury Apartment in Dupont Circle Apartment”

“AP Exclusive: National Meth Labs Busts up in 2011”

February 2, 2012
Inthecapital.com

February 22, 2012
Associated Press
Methamphetamine Laboratories are Being Found Near & At Schools in Georgia

“Police bust meth lab next to elementary school”

“Meth lab found in truck at South Effingham Middle School”

“Lawrence Lanier, 34, had two small children in his truck within arm’s reach of a meth lab when he was arrested at South Effingham Middle School, Effingham County Sheriff’s Office spokesman David Ehsanipoor said.”

WTOC.com March 29, 2012 Kingsland, Georgia

Savannahnow.com April 10, 2012
Methamphetamine Laboratories are Harming Our Environment
Tennessee & Kentucky

“Man Dumped Meth Waste Into Trout Stream.”

“Dumping meth labs – Materials pose threat to environment, including water supply, fish and wildlife”

“My concern is this is a trout stream, there are kids that fish this area,” said Sheriff Hensley

“The bad news is for the public Loving said, because the chemicals left behind are now in the river where people fish and swim.”

April 25, 2012 WCYB.com

BG DailyNews.com August 19, 2011
Meth labs are Dangerous
Back to the CMEA . . .
CMEA (Combat Methamphetamine Epidemic Act of 2005)

Title VII of Public Law 109-177
The Combat Methamphetamine Epidemic Act of 2005

Sales of Scheduled Listed Chemical Products

Required Training and Self-Certification

Law Enforcement Queries Regarding Self-Certification

Import and Production Quotas for the List I Chemicals Ephedrine, Pseudoephedrine, and Phenylpropanolamine

Importation, Exportation, and International Transactions Involving all Listed Chemicals

The Combat Methamphetamine Epidemic Act of 2005

USA Patriot Improvement and Reauthorization Act 2005 (Public Law 109-177) (PDF)

General Information Regarding the Combat Methamphetamine Epidemic Act of 2005 or PDF Version

Sales of Scheduled Listed Chemical Products

Implementation of the Methamphetamine Production Prevention Act of 2008 (December 1, 2011)

Interim Final Rule - Self-Certification and Employee Training of Mail-Order Distributors of Scheduled Listed Chemical Products (April 26, 2011)
How do I store these drug products?

- You must store drug products containing ephedrine, pseudoephedrine, and phenylpropanolamine either behind the counter or in a locked cabinet.
- You must give the drug product directly to the customer who signed the logbook or who provides identification.
Identification and Verification

- Your customer must show you a photo identification issued by a State or the federal government.
- You cannot sell Scheduled Listed Chemical Products containing ephedrine, pseudoephedrine, or phenylpropanolamine to customers unless they present appropriate identification.
- You must verify that your customer’s name on the photo identification matches the name your customer wrote in the logbook.
- You must verify that the date and time of the sale that your customer wrote in the logbook are correct.
CMEA Required Training & Self-Certification

For questions contact Help Desk - 1-800-882-9539

Self-Certification (Training Required Prior to Self-Certification)

$21 self-certification fee established for regulated sellers of scheduled listed chemical products (SLCPs) that are not DEA pharmacy registrants

Training Required to Sell Drug Products Containing Ephedrine, Pseudoephedrine, and Phenylpropanolamine

Retail Vendors (Only one certificate per Retail Store is required)
Mobile Retail Vendor (Self-certification required for each location)
Mail-Order Vendors
Meth’s Effects
Meth is highly Addictive

- When compared to Alcohol and Cocaine:
  - A group of 100 people given a drink of alcohol every day for 3 weeks, **8 of the 100** will become addicted.
  - A group of 100 people given meth or cocaine orally or as snuff every day for 3 weeks, **14 of the 100** will become addicted.
  - A group of 100 people given meth by smoking or injection just 2 times, **90 of the 100** will become addicted.
  - If a recovering meth addict, who has been clean for 11 months, has a hit of meth in placed in front of them, the desire to use it will cause the addict to use it, **100%** of the time.

Dr. S. Alex Stalcup MD, New Leaf Treatment Center
Meth Abuse side effects . . .
“Every day we beat our heads against the wall, dealing with these people,” said Kim Hayes, a registered nurse and case manager at the burn unit. “Right now, there are no consequences for these people. You blow yourself up in a meth lab. You get free health care because we are going to take care of you. We’re going to give you everything you need. You’re going to go out. You’re going to do it again and then we’ll give you everything for free again.”

www.tennessean.com September 5, 2011
Tracking vs. Scheduling
Tracking

- Logbooks electronically connected to database
- Database determines if individual can make purchase
- Permanent electronic record of purchase
- Stop sale ability
- Helps LE identify “smurfers.” Or does it?
- Leads to identification of lab operators and labs. Or does it?
- More arrests and seizures….maybe
- Tool for LE .. If all retail outlets are involved and the database is not corrupted by false IDs
- In Place - KY, MO*, AR*, CA*, TN, PA ++++++++++++
Schedule III Prescription Only

- PSE and EPH can only be obtained pursuant to prescription from a physician or practitioner
- Cannot freely purchase from retail outlets - ends unrestricted availability and smurfing
- If a CS, PDMP may be utilized for tracking purposes (if authorized by state law or regulation)
- In place in Oregon – 96% lab seizure reduction
- In place in Mississippi – 67% reduction
- Decrease in labs leads to a decrease in resources expended – LE and local/city/state funds (OT, lab cleanups, environmental issues, children/defs/citizens/cops health care, foster care etc)
- LE can restructure resources to handle other LE issues instead of providing cleanup service and chasing smurbers
- Prevents labs – is not a reactive tool, but a preventative measure
DISCLOSURE –

• NEITHER Tracking or Prescription only will have ANY impact on Methamphetamine Availability in the United States!

• But, Prescription only PSE will impact the number of domestic meth labs
Oregon
Meth Lab Seizures by Year

* Behind the counter and log book on May 14, 2005
** Prescription only on July 1, 2006

Source: NSS-EPIC
Query Date: July 1, 2014
“Electronic systems that track sales of the cold medicine used to make methamphetamine have failed to curb the drug trade and instead created a vast, highly lucrative market for profiteers to buy over-the-counter pills and sell them to meth producers at a huge markup.”

“The pharmaceutical industry has spent several million dollars to fund the tracking systems. For drug makers, that is far cheaper than one alternative -- making the medication available only by prescription. If more states do the same, it could be devastating for makers of cold and sinus pills. The pseudoephedrine market is estimated at more than $550 million annually."
After just six months, a new law requiring a prescription for cold and sinus medicines containing pseudoephedrine has proved to be an effective deterrent to methamphetamine production in Mississippi.

“Early results show a nearly **70 percent reduction in meth-related cases statewide.** Now when we find pseudoephedrine at meth labs, it was purchased in surrounding states,” explained Director Fisher.

Figures from the MBN indicate officers worked **124** meth labs from July to December 2010, a **68 percent reduction** from the **389** meth labs they worked from July to December 2009.

Officials removed **19** children from meth lab sites July to December 2010, a **76 percent reduction** from the **80** children removed from meth labs sites July to December 2009.

“**Other states are looking to follow Mississippi’s lead and pass the same law. This works; I hope they do,**” Director Fisher said.
Meth Labs and Child Welfare
35% of children removed from lab scenes test positive for meth
Methamphetamine Laboratories are Harming Our Children Oklahoma

“OKLAHOMA CITY - A judge was told Friday that Del City fire investigators found evidence that methamphetamine was made inside the burned motorhome where three young children died Jan. 4.” July 23, 2011 newsOK.com
Methamphetamine Laboratories are Endangering our Children Indiana & Florida

“Police believe a Muncie couple put the lives of hundreds of children – including three of their own – in danger by maintaining a meth lab in their southeast Muncie home near a school and a day care center.”

Muncie Star Press December 32, 2011

“Police seek person who made meth at SW IND school”

Wish TV 8 December 13, 2011

“4 children escape meth lab fire”

FoxTV.com Florida October 27, 2011
Methamphetamine Laboratories are Endangering Our Children
Indiana & Georgia

“Two arrested and children taken into protective custody in Elkhart meth bust.”

“Report: Chattooga Co. woman hides meth lab under children's play house”

July 22, 2011 WSBT-TV

The Summerville News April 16, 2012
Methamphetamine Laboratories are Endangering our Children & Families West Virginia & Michigan

“The number of meth labs is on the rise in West Virginia, and more than half are happening in homes with children.”

“Meth lab explosion forces five families out of their apartments”

WSZ3  November 22, 2011

Hillsdale.net  April 6, 2012
Cambria, Michigan
Methamphetamine Laboratories are Harming Our Children

Ohio

“Death of Akron toddler called suspicious; police say meth lab found in home.”

“Ohio toddler died from ingesting meth”

Akron Beacon Journal Online
February 27, 2012 & March 27, 2012
“3 Children Killed, Evidence Of Meth Found In Fire”

“GWINNETT COUNTY, Ga. -- Gwinnett County police charged a man with murder after firefighters said they found chemicals related to methamphetamine production in a house fire that killed three children.”

Gadailynews.com  February 18, 2011
Methamphetamine Laboratories are Harming Our Children
North Carolina

“Sheriff Hubert Peterkin said Thursday his deputies raided a suspected meth operation near the Hoke/Cumberland County line where a 6-month-old child was burned. .”
February 4, 2011
WTVD Raleigh, N.C.

“In Morgantown, a meth lab was discovered at a day-care center.”
April 3, 2011
www.charlotteobserver.com
Impact of One Meth Lab - $350,000

- Child Welfare: $12,000
- Mental Health: $20,000
- Treatment: $54,000
- Family: $Unknown
- Health Care: $Unknown
- School: $Unknown
- Unborn Children: $Unknown
- Jobs: $50,000
- Property Damage: $17,000
- Toxic Waste Cleanup: $3,500
- Court: $5,000
- Corrections: $252,000
- Law Enforcement: $5,000

* Using a model developed by John Duncan, PhD, Chief Agent, Oklahoma Bureau of Narcotics
*Total Costs: $23.4 BILLION

And it all begins with Smurfing!!

*2009 Rand Study
United States Encounters and Efforts against Synthetic Designer Drugs

August 2-3, 2014

Pharmacy Diversion Awareness Conference
Denver, Colorado

Antonio R. Guzman, Staff Coordinator
Synthetic Drugs and Chemical Section
U.S. Drug Enforcement Administration
UNODC: NPS are substances of abuse that are not under international control (but constitute a significant public health threat)
Compounds Encountered in the U.S. since 2009

More than 233 new Synthetic Compounds
From 8 Classes of Drugs

U.S. law enforcement has encountered:

- 95 synthetic cannabinoids
- 51 synthetic cathinones
- 87 other compounds (2C compounds, tryptamine, piperazines, etc.)
Synthetic Designer Drugs

• These drugs are perceived as being „legal“ alternatives to marijuana, cocaine, methamphetamine, MDMA and LSD

• These drugs are being marketed and sold as:
  • incense and potpourri
  • bath salts
  • glass cleaner
  • shoe deodorizer
  • plant food
  • “Molly”
  • Research chemicals
  • And many other names

• Often more dangerous than the traditional illicit drugs they are purported to mimic
Synthetic Cannabinoids  
(Spice, K2, legal weed)
Synthetic Cannabinoid Profit Margin

One Kilogram of Powder

Thirteen Kilograms of Organic Leaf

$20.00 each 1 to 2 Gram Package

Approximately $250,000 Profit per Kilogram
Synthetic Cannabinoids

- Unregulated and unlicensed industry
- Multiple manufacturers

- Sold in convenience stores, gas stations (often behind the counter), smoke and head shops and online
- Significant batch to batch variance (i.e. “hot spots”, multiple or different drugs)
- Labeled “Not for Human Consumption”
SYNTHETIC CANNABINOID

• What does it look like?

• How is transformed/made into a usable form?
SYNTHETIC CANNABINOID
ACETONE SOLVENT – 5 gallon cans
Bulk Plant Material
Dried Ground Plant Leaves
Mix the product
Add Flavoring
Packaging Center
Other Processing Locations
“SPICE” MANUFACTURING SITE
Sold at Gas Stations, Convenience Stores, Head Shops and Online
Cost Comparison – “potpourri”

- Scooby Snax 4 gram = $25
- 453 grams per pound
- 336 grams real potpourri above
- Equivalent Cost = $2,100

U.S. Drug Enforcement Administration / Operations Division / Office of Diversion Control
Liquid Cannabinoid Delivery Method
E-cigarettes

AB-PINACA and nicotine

5F-UR-144
Brand: Magic Juice Watermelon

AB-FUBINACA
Why Spice? - 18 year old’s perception

• “Spice vs Marijuana”
  – Doesn’t show up on urinalysis testing
  – More potent
    • “10Xs higher”
  – Less expensive
    • “10Xs cheaper”
Cannabinoid Collateral Damage

- Major outbreaks in Austin, TX
- XLR11 & AB-FUBINACA
- Dallas, TX
- Gainesville, FL
Abusers are presenting at Emergency Departments and also seeking treatment for dependence and withdrawal.

Multiple deaths have been connected to the abuse of these substances alone and with other substances on-board.

<table>
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<tr>
<th>Psychological</th>
<th>Anxiety, aggressive behavior, agitation, confusion, dysphoria, paranoia, agitation, irritation, panic attacks, intense hallucinations</th>
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</thead>
<tbody>
<tr>
<td>Neurological</td>
<td>Seizures, loss of consciousness</td>
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<tr>
<td>Cardiovascular</td>
<td>Tachycardia, hypertension, chest pain, cardiac ischemia</td>
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<tr>
<td>Metabolic</td>
<td>Hypokalemia, hyperglycemia</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>Nausea, vomiting</td>
</tr>
<tr>
<td>Autonomic</td>
<td>Fever, mydriasis</td>
</tr>
<tr>
<td>Other</td>
<td>Organ damage</td>
</tr>
</tbody>
</table>
BATH SALTS, PLANT FOOD, GLASS CLEANER, ETC.
Synthetic Cathinones
(bath salts, plant food, glass cleaner, “Molly”)

• Structurally and pharmacologically similar to amphetamine, Ecstasy (MDMA) and other related substances.

• Are central nervous system (CNS) stimulants and have stimulant and psychoactive properties similar to schedule I and II amphetamine type stimulants.

• Synthetic cathinones are sold in retail stores, on the internet, and in “head shops” as “bath salts”, “plant food”, “jewelry cleaner”, “lady bug attractant” and others.
Synthetic Cathinones
(bath salts, plant food, glass cleaner)

• Like the cannabinoids, unregulated and unlicensed industry
• Full disclosure of ingredients typically not present
• Significant batch to batch variances “Hot Spots”
• Sold in convenience stores, gas stations and online
Cost Comparison – plant food & “plant food”

- Blow – ½ gram = $40
- 453 grams per pound
- 680 grams in above Plant Food
- Equivalent Cost = $54,400
### Adverse Health Effects: Cathinones

<table>
<thead>
<tr>
<th>System</th>
<th>Symptoms</th>
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<td><strong>Cardiovascular</strong></td>
<td>palpitations, tachycardia, chest pain, vasoconstriction, myocardial infarction</td>
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<tr>
<td><strong>Psychological</strong></td>
<td>Aggressive behavior, anger, anxiety, agitation, auditory and visual hallucinations, depression, dysphoria, empathy, euphoria, fatigue, formication, increased energy, concentration, panic attacks, paranoia, perceptual disorders, restlessness, self-mutilation, suicidal ideation</td>
</tr>
<tr>
<td><strong>Neurological</strong></td>
<td>Seizures, tremor, dizziness, memory loss, cerebral edema, headache, lightheadedness</td>
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<tr>
<td><strong>Musculoskeletal</strong></td>
<td>Arthralgia, extremity changes (coldness, discoloration, numbness, tingling), muscular tension, cramping</td>
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<tr>
<td><strong>Gastrointestinal</strong></td>
<td>Abdominal pain, anorexia, nausea, vomiting</td>
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<tr>
<td><strong>Pulmonary</strong></td>
<td>Shortness of breath</td>
</tr>
<tr>
<td><strong>Ear Nose Throat</strong></td>
<td>Dry mouth, nasal pain, tinnitus</td>
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Synthetic cathinone users commonly report cardiac, psychiatric, and neurological signs and symptoms with death.
Synthetic Cathinones

- Also sold in pill form
- Popular at Clubs
- Available at Parties
- Mimics MDMA
  - Ecstasy/XTC
- Street name “Molly”
What is Molly? Where did the term come from?

- Molly – derived from the word “molecule”
  - Rogue chemists would often alter one molecule to defeat the controlled substance laws

- Molly – a synthetic designer drug
  - Originally - a street name for pure MDMA (Ecstasy)
  - Currently - a street name for a drug, that has the same effects as MDMA
Molly

Some of the Drugs found in “Molly" (Scheduled)

- MDMA (1985)
- Methylone (October 2011)
- A-PVP (March 2014)
- 4-MEC (March 2014)
- Pentadrone (March 2014)
- Butylone (March 2014)
- Ethylone
- others
Other Synthetic Drugs of Abuse
Phenethylamines
25I-NBOMe and 25C-NBOMe
“N-BOMB”, “2-5-I”, “Eye” and “Smiles”

• Hallucinogen, abused orally or through nasal passages
• Encountered on blotter paper and in dropper bottles
• Taken as a substitute for LSD
• Linked to several overdose deaths
• 11/2013 controlled 25I-NBOMe, 25B-NBOMe & 25C-NBOMe
RI Medical Examiner's Office regarding twelve (12) overdose deaths in March/April 2013

Preliminary Lab/Toxicology reports attribute OD deaths to Acetylfentanyl

- 5 of 12 overdose deaths occurred in Woonsocket, RI
- May 16, 2013 two individuals arrested in Woonsocket, RI in possession of 28 grams of suspected Acetyl fentanyl
- Attempts will be made to confirm link to OD deaths
Addressing through Legislation
# U.S. Synthetic Drug Abuse and Prevention Act 2012

### Cannabinoids

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<tr>
<td>1</td>
<td>AM2201</td>
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<tr>
<td>2</td>
<td>AM694</td>
</tr>
<tr>
<td>3</td>
<td>CP-47,497</td>
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<tr>
<td>4</td>
<td>CP-47,497 – C8 homologue</td>
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<tr>
<td>5</td>
<td>JWH-018</td>
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<tr>
<td>6</td>
<td>JWH-073</td>
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<td>7</td>
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<td>14</td>
<td>SR-19</td>
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### Cathinones

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<tbody>
<tr>
<td>1</td>
<td>Mephedrone</td>
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<tr>
<td>2</td>
<td>MDPV</td>
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### Phenethylamines

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<tr>
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<tr>
<td>2</td>
<td>2C–D</td>
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<td>3</td>
<td>2C–C</td>
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<td>2C–N</td>
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<tr>
<td>9</td>
<td>2C–P</td>
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DEA Office of Diversion Control
Why is it hard for law enforcement to keep up?
Designer Drug Market Encounters

- **JWH-018** (Nov 2009)
- **AM2201** (Apr 2011)
- **XLR-11** (Feb 2012)
- **UR-144** (Mar 2012)
- **AKB-48** (Jun 2012)
- **PB-22** (Feb 2013)

**Key Events**:

- **Mar 2010**: State controls initiated
- **Oct 2010**: DEA notice to schedule published
- **Mar 2011**: Final Order placing 5 synthetic cannabinoids in Schedule I
- **Jun 2012**: Federal legislation signed, placing 15 synthetic cannabinoids in Schedule I
- **Jul 2012**: State controls for UR-144 & XLR-11
- **Dec 2012**: State controls for UR-144

**State Actions**:

- **GA Pharmacy Board**: Bans UR-144 & XLR-11
- **KS Board of Pharmacy**: Bans UR-144
Prosecution of Non-Controlled Drugs
U.S. Controlled Substance Analogue Act

21 USC 813 – A Controlled Substance Analogue, shall, to the extent intended for human consumption, be treated for the purposes for any Federal law as a controlled substance in Schedule I

21 USC 802(32) – chemical structure is substantially similar to a controlled substance in schedule I or II and has a similar pharmacologic effect.
Law Enforcement Efforts
OPERATION LOG JAM
July 2012

- 100 Arrests
- 300 Search Warrants
- 80 Consent/Knock-Talk Contacts
- 38 Manufacturing Sites
- 432 Pounds Raw Synthetic Cathinones
- 167,187 Packets of Synthetic Cathinones
- 4,852,099 Packets of Synthetic Cannabinoids
- 1,948 Pounds Raw Synthetic Cannabinoids
- 10,487 Pounds of Treated Plant Material
- 48,253 Pounds of Untreated Plant Material
- >$45,000,000 in US Currency/Bank Accounts
- Vehicles/Value - 88
- Other Assets - $5,688,500
- Firearms - 77
- 1096 Gallons of Acetone Seized
Log Jam Seizures
July 25-26, 2012

Synthetic Cannabinoid Seizures

• 4.8 Million Units Synthetic Cannabinoid Products
  – $10 Unit = $48 Million
• 1,984 lbs. Synthetic Cannabinoid Compound
  – $5/gram = Over $45 Million
• 10,487 lbs. unpackaged Synthetic Cannabinoid Plant Material
  – $5/gram = Over $23 Million

– TOTAL DRUG VALUE = $116 million
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Operation Log Jam
Seizures
July 25-26, 2012

- 560,000 units Synthetic Cathinone Products
  - $20/UNIT = $11.2 MILLION

- 448 lbs. unpackaged Synthetic Cathinone Powder
  - $40/GRAM = Over $8 Million

- Smaller amounts of Hydrocodone, Marijuana, Cocaine, Heroin, LSD, other analogue drugs; hydroponic grow set up (no plants)
Change is the only constant in the drug world.
WITHDRAWAL FROM OPIATES

"One patient said to me, 'Imagine the worst flu when you’re shivering, you’re vomiting, you can’t eat, you have diarrhea, every atom in your body hurts, you can’t sleep, you lie on the floor just shivering ... and multiply that times a million,'" Fallieras recounted. "And you know if you can just take the pill or inject yourself with heroin, that it just all goes away."
LEVAMISOLE – (Ergamisol)- an old drug once used to treat parasitic worm infections

*Over 80 % of cocaine seized in US is laced w/ levamisole (avg concentration approx 10 %)

*Can lead to severe reduction of white blood cells, a problem called agranulocytosis.

*Cutting agent or modifies pharmacological properties of cocaine

*ID of synergism for cocaine/levamisole interaction (Neuropharmacology, 1/2014, Temple Univ Sch of Med)
DEA Web-based Resources

www.DEA.gov
Thank you