Understanding the Impact of Stimulant Use Disorder
Drug Demand Reduction Outreach (DDRO)

MAJ Michael Coy
DDRO State Prevention Coordinator
Counterdrug Mission

Assist Combatant Commands, federal, state, and local law enforcement agencies and Community-Based Organizations in defeating illegal drug smuggling; denying, dislodging and defeating domestic illegal drug production, distribution and demand for illicit substances.

Mission 1 (Program Management)
- Headquarters Element
- Program Administrative Functions
- Operations and Intel Oversight
- Program Logistics Functions
- Program Communications Support
- Program Finance

Mission 2 (Technical Support)
- Linguist Support
- Investigative Case and Analyst Support
- Illicit Narcotics Detection Support
- Communication Support
- Engineer Support
- Subsurface/Diver Support
- CTF Analyst Support
- Imagery/Map Support

Mission 3 (General Support)
- Domestic Cannabis Suppression Operations
- Transportation Support

Mission 4 (Training)
- Counterdrug Training Support to federal, state, and local LEAs
- Develops training to meet the evolving drug centric threat

Mission 5 (Reconnaissance)
- Visual reconnaissance by mobile patrols and listening/observation posts
- Camera Installation and Photo reconnaissance
- Air and Marine Surveillance Radar
- Aerial Reconnaissance

Mission 6 (Drug Demand Reduction Outreach)
- Provides strategic support to community coalitions and task forces
- Establish strategies that support state and national prevention initiatives
- Assist coalitions in community outreach
- Facilitate strategic communications and prevention initiatives that target youth
**Mission Statement**
To provide a strong response to substance misuse to achieve reduction and prevention of widespread misuse of illicit substances throughout the state.

**Objectives**
- Enhance communication and data sharing between LEA’s and Coalitions
- Increase communities’ awareness and capacity to identify needs and address them
- Increase quality of support for effective drug use and abuse prevention strategies
- Reduce rates of substance abuse and demand in communities
- Become a force multiplier with the State and Federal prevention initiatives
DDRO Region Map

State Prevention Coordinator: MAJ Michael Coy
Operations Officer: CW2 Brian Presley

<table>
<thead>
<tr>
<th>Region</th>
<th>OIC</th>
<th>NCOIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Florida</td>
<td>CPT Gabrielle Magnanti</td>
<td>TSgt Robert George</td>
</tr>
<tr>
<td>Central Florida</td>
<td>1LT Mya Russi</td>
<td>1SG Frank Vargas</td>
</tr>
<tr>
<td>South Florida</td>
<td>CPT Shannon McGuire</td>
<td>SSG Christopher Pierce</td>
</tr>
</tbody>
</table>

Florida National Guard Counterdrug Program

54 Missions
28 Counties

UNCLASSIFIED//FOUO
Mission and Vision

The mission of CCA is to serve as a collective voice of community coalitions working towards the health and wellness of all Floridians. By bringing together coalitions across various communities - rural and urban, similar and different, this collective allows for opportunities to leverage efforts, ideas, and opportunities. These efforts will allow members to join in CCA’s vision of communities that work together to provide Floridians a healthy, safe environment in which they can thrive.
About the Community Coalition Alliance

CCA provides a forum for partnerships, community involvement and participation and interagency cooperation and collaboration by focusing on the issues with data-driven decision-making, evidence-based strategies and the risk and protective factors. There are four key roles the agency incorporates including:

- Membership
- Funding and Oversight
- Training and Technical Assistance
- Partnership Engagement
Understanding the Impact of Stimulant Use Disorder

01 Define Stimulants
02 Learn to recognize signs of stimulant intoxication, overdose (overamping), and withdrawal
03 Discuss the risks associated with stimulant use
04 Identify evidenced-based approaches to address stimulant use
Stimulants
What are Stimulants?

✓ A class of psychoactive drugs that increase activity in the brain, impacting alertness and mood.

✓ Substances that excite functional activity in the central nervous system.

✓ They speed up the body’s systems.

✓ They are found in both legal and illegal substances.
Classifications
Classifications

- Caffeine
- Nicotine
- Cocaine
- Methamphetamine
- Prescription stimulants
Classifications

✓ Caffeine
✓ Nicotine
✓ Cocaine
✓ Methamphetamine
✓ Prescription stimulants

Commonality:
Can be highly addictive, causing negative effects on health and wellness
Caffeine

- Foods – chocolate

- Drinks – coffee, tea, cocoa, chocolate candy, energy drinks, and soft drinks

- Medications – over the counter and prescription

Consuming too much:
Increased feelings of anxiety, dizziness, fast heart rate, and insomnia.
Nicotine

- Cigarettes
- Cigars
- Pipe tobacco
- Chewing tobacco
- Wet and dry snuff
- E-Cigarettes - Vapes

Consuming too much:

Lead to nicotine poisoning: feelings of confusion, seizures, fast breathing or stopping breathing altogether, and potentially even death.
Cocaine

- Made from the leaves of the coca tree
- Increases dopamine levels in the brain, a neurotransmitter that plays a role in reward and movement control.
Cocaine – Various Forms

- Powder cocaine
- Dissolved powder to inject into the bloodstream
- In combination with other substances
- Smoking – cocaine that has been processed to make a rock crystal
Cocaine – Short Term Effects

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Extreme happiness and energy</td>
<td></td>
</tr>
<tr>
<td>Mental alertness</td>
<td></td>
</tr>
<tr>
<td>Hypersensitivity to sight, sound,</td>
<td></td>
</tr>
<tr>
<td>and touch</td>
<td></td>
</tr>
<tr>
<td>Irritability</td>
<td></td>
</tr>
<tr>
<td>Paranoia—extreme and unreasonable</td>
<td></td>
</tr>
<tr>
<td>distrust of others</td>
<td></td>
</tr>
</tbody>
</table>
Cocaine – Long Term Effects

- **Snorting**: loss of smell, nosebleeds, frequent runny nose, and problems with swallowing

- **Smoking**: cough, asthma, respiratory distress, and higher risk of infections like pneumonia

- **Consuming by mouth**: severe bowel decay from reduced blood flow

- **Needle injection**: higher risk for contracting HIV, hepatitis C, and other bloodborne diseases, skin or soft tissue infections, as well as scarring or collapsed veins
Methamphetamine - Forms

- Powder
- Pills
- Sticky base
- Crystalline shards

Increases the amount of the natural chemical dopamine in the brain.
**Methamphetamine**

### Short Term Effects

<table>
<thead>
<tr>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased blood pressure and body temperature</td>
</tr>
<tr>
<td>Rapid and/or irregular heartbeat</td>
</tr>
<tr>
<td>Increased wakefulness and physical activity</td>
</tr>
<tr>
<td>Decreased appetite</td>
</tr>
<tr>
<td>Faster breathing</td>
</tr>
</tbody>
</table>
Methamphetamine – Long Term Effects

- Extreme weight loss
- Severe dental problems
- Anxiety
- Changes in brain structure and function
- Confusion
- Memory loss

- Sleeping problems
- Violent behavior
- Paranoia
- Hallucinations
- Intense itching, leading to skin sores from scratching
Prescription Stimulants

• Increase alertness and energy

• Speed up mental and physical processes that create enhanced focus

• Used to address conditions like: attention-deficit hyperactivity disorder (ADHD) and narcolepsy
Common Prescription Stimulants

Works by enhancing the effects of dopamine and norepinephrine.

• Ritalin (methylphenidate)

• Adderall (dextroamphetamine-amphetamine)

• Dexedrine (dextroamphetamine)
Terminology – Overdose Description for Stimulants

- **Stimulant Toxicity**: condition as a result of intoxication

- **Overamping**: term used in place of “overdose” to describe negative effect resulting from stimulant use
  - Rapid onset or elevated heart rate
  - Incontinence
  - Audio-visual hallucinations
  - Unconsciousness
  - Cardiac arrests or seizures
Stimulant Overamping

• Experiencing *effects* of stimulants so *severe* that health or safety may be at risk.

• **Important to Understand:** *Not all stimulant overdoses look the same.*

• Experiences *vary* – even if not fatal, medical attention may still be necessary.
Stimulant Overamping

Acute adverse event related to a high dose of stimulant use relative to an individual's tolerance.

- Physical Effects
- Psychological Effects
Signs and Symptoms

Physical

• Dilated pupils
• Dizziness
• Tremor
• Nausea or vomiting
• Overheating or excessive sweating
• Hypertension (high blood pressure)
• Chest pains or tightness
• Rapid breathing, fast heart rate or arrhythmia

Psychological

• Restlessness or irritability
• Confusion
• Hypervigilance
• Mood swings
• Panic or extreme anxiety
• Hallucination
• Psychosis
Signs of Lethal Effect

• Blood pressure rises
• Heart rate rises
• Heart Attack
• Body temperature rapidly rises
• Breathing issues occur
• Seizures or Stroke
Responding

• Call 911

• While waiting:
  • Overheating (hyperthermia): ice pack, cool water mist, wet cloth under armpits, back of the knee, or head, fan

  • Suspected Seizure: Turn the person to one side, place a pillow or soft item under head, move hard or sharp objects away

  • DO NOT restrain an individual who is experiencing a seizure or place items in their mouth
Risks Associated with Stimulant Use

✓ Increased feelings of anxiety
✓ Dizziness and fast heart rate
✓ Insomnia
✓ Feelings of confusion or memory loss
✓ Seizures
✓ Breathing complications: fast breathing or stopped breathing
✓ Higher risk of infections
✓ Skin issues and infections
✓ Dental decay
✓ Hallucinations or Paranoia
✓ Death
What’s Happening in Florida?
Florida Medical Examiners Data

Stimulant-Related Deaths 1st Half of 2022 (Interim)
# Florida Medical Examiners Data

## Stimulant-Related Deaths 1st Half of 2022 (Interim)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Cause</th>
<th>Present</th>
<th>Total Deaths</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocaine</td>
<td>1230</td>
<td>663</td>
<td>1893</td>
<td>24.69%</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>1088</td>
<td>357</td>
<td>1445</td>
<td>18.85%</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>418</td>
<td>932</td>
<td>1350</td>
<td>17.61%</td>
</tr>
<tr>
<td>Cathinones</td>
<td>142</td>
<td>62</td>
<td>204</td>
<td>2.66%</td>
</tr>
<tr>
<td>Mitragynine/Kratom</td>
<td>82</td>
<td>75</td>
<td>157</td>
<td>2.05%</td>
</tr>
<tr>
<td>Hallucinogenic Phenethylamines</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piperazine</td>
<td>27</td>
<td>26</td>
<td>53</td>
<td>0.69%</td>
</tr>
<tr>
<td>Sympathomimetic Amines</td>
<td>3</td>
<td>9</td>
<td>12</td>
<td>0.16%</td>
</tr>
<tr>
<td>Hallucinogenic Tryptamines</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0.03%</td>
</tr>
<tr>
<td>PCP and PCP Analogs</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>
Trend Alert – Fentanyl Mixture

Florida Medical Examiners - Mid-Year 2022
Of the 3,050 deaths involving Fentanyl,
✓ 924 included Methamphetamine
✓ 816 included Amphetamine
✓ 1163 had Cocaine

Florida Department of Law Enforcement (2022). Drugs Identified in Deceased Persons 2022 Interim Drug Report by Florida Medical Examiners.
Cocaine or Psychostimulant Drugs

2017 vs 2022

Data Source: https://frost.med.ufl.edu/frost/
Methamphetamine Drugs

2017

2022

Data Source: https://frost.med.ufl.edu/frost/
Methamphetamine Drugs

2017

2022

Data Source: https://frost.med.ufl.edu/frost/
Drug-Caused Deaths 2009–2022 Q2 (Florida)
Deaths per 100,000 population

Deaths caused by cocaine and methamphetamine peaked in 2021

Data Source: https://frost.med.ufl.edu/frost/
National Survey on Drug Use and Health (NSDUH) Substate Estimates
Perceptions of Great Risk from Using Cocaine Once a Month among Individuals Aged 12 or Older, by State: 2018–2019

According to NSDUH, in Florida more people aged 12 and older (74.97%) have a perception of great risk from using cocaine once a month compared to the U.S. (70.59%).
Cocaine use is higher in the United States (2.03%) compared to Florida. However, Florida (1.93%) is higher compared to the Southern (1.70%) region of the United States.

This map shows regions in Florida with the percentage of people who have used cocaine in the past year. The highest percentages are in the Northwest region.
Cocaine Use in the Past Year
Individuals Aged 12 or Older, by Substate Region: 2018–19

In Florida, cocaine use is highest among people who are 18-25 (5.07%)
FLHealthCHARTS

Emergency Department Visits
Hospitalizations
Prescriptions
Non-fatal Overdose Emergency Department Visits, Florida

Emergency department visits for non-fatal stimulant overdose have increased over the last four years. In 2021, there was a 14.3% increase in visits compared to 2018. This data does not include overdoses that are not treated in the emergency department.

Data Source: Florida Agency for Health Care Administration
Stimulant-involved Non-fatal Overdose Emergency Department Visits

This chart shows emergency department visits for non-fatal stimulant overdose by quarter.

Peak: Quarter 2 for hospitalizations found for ED visits.

Trend: Beginning of 2022 increasing

Data Source: Florida Agency for Health Care Administration
Non-fatal Overdose Emergency Department Visits, Florida

This chart shows the proportion of all-drug related emergency department visits that involved stimulants which has nearly doubled from 2020 to 2021.

Data Source: Florida Agency for Health Care Administration
Non-fatal Overdose Emergency Department Visits, Florida

This chart shows the count of drug related emergency department visits by drug type.

Stimulants had a 14.3% increase whereas opioid related visits increased 63.5%. Overall suspected all-drug related non-fatal overdoses increased 36% in Florida.

Data Source: Florida Agency for Health Care Administration
This chart shows the count of hospitalizations in Florida as a result of a non-fatal overdose.

Data Source: Florida Agency for Health Care Administration
Non-fatal Stimulant-involved Overdose Hospitalizations, Florida

This chart shows the count of hospitalizations in Florida as a result of a non-fatal overdose by quarter.

**Peak:** Quarter 2 for hospitalizations found for ED visits.

**Trend:** Beginning of 2022 increasing

Data Source: Florida Agency for Health Care Administration
Data Source: Florida Youth Substance Abuse Survey (FYSAS)

Students Who Have Ever Used Prescription Amphetamines Without a Doctor's Orders, Florida, 2022
Students Who Have Ever Used Prescription Amphetamines Without a Doctor's Orders, Florida, 2022

Overall trends for student use of prescription amphetamine use without a doctor’s orders is higher among females than males in Florida.

Data Source: Florida Youth Substance Abuse Survey (FYSAS)
Students Who Have Ever Used Prescription Amphetamines Without a Doctor's Orders, Florida, 2022

Overall trends for prescription amphetamine use without a doctor's orders is highest among Florida students who identify as Non-Hispanic White race.

Data Source: Florida Youth Substance Abuse Survey (FYSAS)
Stimulants and Street Drugs - 2022

Poison Control Information Center calls for stimulants and street drugs are highest in Miami-Dade county (0.1482 per 1000 exposures). Calls are most frequently regarding children less than or equal to 5 years old or between 13-19 years old.

Data Source: https://floridapoisonecontrol.org/poisoning-data/
Poison Control Information Center calls for amphetamines and related compounds are highest in Hillsborough County (0.0560 per 1000 exposures) followed by Miami-Dade county (0.0268 per 1000 exposures). Calls are most frequently regarding children between 13-19 years or less than or equal to 5 years old.
Florida Poison Control Information Center

Methamphetamines - 2022

**Top 15 Exposure Categories**

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENZODIAZEPINES</td>
<td>2624</td>
</tr>
<tr>
<td>AMPHETAMINES AN..</td>
<td>776</td>
</tr>
<tr>
<td>GABAPENTIN</td>
<td>770</td>
</tr>
<tr>
<td>MARIJUANA: EDIBLE..</td>
<td>575</td>
</tr>
<tr>
<td>MARIJUANA: DRIED..</td>
<td>437</td>
</tr>
<tr>
<td>COCAINE</td>
<td>237</td>
</tr>
<tr>
<td>CANNABIDOL (CBD)</td>
<td>230</td>
</tr>
<tr>
<td>METHAMPHETAMINE..</td>
<td>187</td>
</tr>
<tr>
<td>SYNTHETIC PHEN..</td>
<td>06</td>
</tr>
<tr>
<td>KRATOM</td>
<td>58</td>
</tr>
<tr>
<td>CARISOFRODOIL (F..</td>
<td>47</td>
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<tr>
<td>LYSERGIC ACID DIE..</td>
<td>43</td>
</tr>
<tr>
<td>ECIGARETTES: MARIJUANA:..</td>
<td>29</td>
</tr>
<tr>
<td>MARIJUANA: CONC..</td>
<td>29</td>
</tr>
<tr>
<td>SYNTHETIC CANNA..</td>
<td>26</td>
</tr>
</tbody>
</table>

**Age Distribution**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Exposure Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;= 5 Years</td>
<td>&lt;10</td>
</tr>
<tr>
<td>6-12 Years</td>
<td>&lt;10</td>
</tr>
<tr>
<td>13-19 Years</td>
<td>&lt;10</td>
</tr>
<tr>
<td>20's</td>
<td>35</td>
</tr>
<tr>
<td>30's</td>
<td>60</td>
</tr>
<tr>
<td>40's</td>
<td>47</td>
</tr>
<tr>
<td>50's</td>
<td>17</td>
</tr>
<tr>
<td>60's</td>
<td>&lt;10</td>
</tr>
</tbody>
</table>

Data Source: https://floridapoisontcontrol.org/poisoning-data/

Poison Control Information Center calls for methamphetamines are highest in Polk (0.02145), Hillsborough (0.01040), and Miami-Dade Counties (0.00512). The count is the same in each of these counties and the rate per 1000 is listed in parentheses.
What can be done?
Primary Prevention

- Education and Awareness
- Safe Storage and Disposal
- DEA Medication Take Back Days
Overamping Prevention

✓ Education and Awareness
✓ Maintaining self health awareness
  ✓ Heart checkups, blood pressure checks, etc.
✓ Talking with your physician or healthcare team
✓ Avoid mixing substances
Treatment and Recovery

✓ Cognitive-behavioral therapy
✓ Contingency management or motivational incentives—providing rewards to patients who remain substance free
✓ Therapeutic communities—Sober Living Housing
✓ Community-Based Recovery Groups
Works in Progress

✓ Research to examine medication assisted treatment options

✓ Cocaine vaccine
Thank You

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References


References


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Stephenson RJ, Toth I. Anti-cocaine vaccine development: Where are we now and where are we going? J Med Chem. 2023;66(11):7086-7100. https://doi.org/10.1021/acs.jmedchem.3c00366


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Substance Abuse and Mental Health Services Administration (2020). Treatment of Stimulant Use Disorders https://store.samhsa.gov/product/Treatment-of-Stimulant-Use-Disorder/PEP20-06-01-001
References

