An Overview of New Psychoactive Substances and the District of Columbia's Strategy for Tackling this Public Health Challenge

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New Psychoactive Substances

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Criminal Justice Coordinating Council (CJCC)

- An independent agency dedicated to continually improving the administration of criminal justice in Washington, DC
- Serves as the forum for identifying issues and their solutions, proposing actions, and facilitating cooperation that will improve public safety and the related criminal and juvenile justice services
- Local and federal agencies develop recommendations and strategies
- Guiding principles – creative collaboration, community involvement and effective resource utilization
Objectives

- Increase participants’ knowledge of new psychoactive substances (NPS)
- Highlight emerging trends in the District of Columbia
- Explore the local and national responses to curbing the use and sale of NPS
NPS

What are these substances?
What is the appeal?
Where are the substances made and sold?
Why are these substances so dangerous?
What are the types?
What are the adverse effects?
NPS: What are these substances?

Unregulated psychoactive (mind-altering) substances that have become newly available on the market and are intended to copy the effects of illegal drugs.
NPS: What are these substances?

The United Nation’s Office on Drugs and Crime

- 2008: NPS first identified in the U.S by Customs and Border Patrol
- 2009-2014: Global Synthetic Drugs Assessment: more than 500 unique substances identified
- 2015: over 200 new substances identified
NPS: What is the appeal?

- Colorful packaging
- Low cost
- High potency
- Unable to detect in some drug tests
NPS: Where are these substances made and sold?

- Manufactured mostly in China and India and shipped to the U.S.
- Easily purchased online, in stores, or on the street
NPS: Where are these substances made and sold?
NPS: Why are these substances so dangerous?

- Intentionally mislabeled and marketed as “safe” or legal alternatives to controlled substances

- Most commonly marketed as:
  - Herbal incense
  - Potpourri
  - Bath salts
  - Jewelry cleaner
  - Plant food
NPS: Why are they so dangerous?

- Chemical composition varies—often unknown
- May be laced with other toxic chemicals
- No definitive research on long term effects

- Classified as a Schedule I drug—
  - No currently accepted medical use
  - High potential for abuse
  - Most dangerous
  - Potential for severe psychological or physical dependence
NPS: What are the types?

- Synthetic cannabinoids
- Synthetic cathinones
- Synthetic hallucinogens
- Synthetic opioids
NPS: What are the types?
Synthetic Cannabinoids (herbal or liquid incense)

- Human-made mind-altering chemicals synthesized in laboratories

- **Cannabinoid** = related to chemicals found in the marijuana plant
  - Mimic biological effects of delta-9-tetrahydrocannabinol (THC)
  - Act on synthetic cannabinoid receptor agonists
NPS: What are the types?
Synthetic Cannabinoids (herbal or liquid incense)
NPS: What are the adverse effects?
Synthetic Cannabinoids (herbal or liquid incense)

Short-term effects

Panic attacks
Hallucinations
Excited delirium
Suicidal thoughts
Altered perception
Psychotic episodes
Severe agitation and anxiety

Rapid heart rate
Violent behavior
Glossy/rolling eyes
Dilated pupils
Nausea and vomiting
Elevated blood pressure
Acute kidney failure
Muscle spasms, seizures, and tremors
Overdose/death

Short-term effects
Long term effects:

- Potential for dependence—severe
- Long term psychological or physiological effects unknown
NPS: **What are the types?**

Synthetic Cathinones (bath salts)
NPS: **What are the types?**

Synthetic Cathinones (bath salts)

- Human-made drugs chemically related to the khat plant
- Swallowed, snorted, smoked, or injected
- White or brown crystal-like powder
- Marketed as a cheap substitute for MDMA (Ecstasy) or Molly
NPS: What are the adverse effects?
Synthetic Cathinones (bath salts)

Agitation
Paranoia
Psychosis
Panic Attacks
Hallucinations
Excited delirium

Nausea
Sweating
Nosebleeds
Increased heart rate
Overdose/death

Short-term effects
NPS: What are the adverse effects?
Synthetic Cathinones (bath salts)

Long term effects:

- Potential for dependence – severe
- Long term psychological or physiological effects unknown
Hallucinogens alter perception, thoughts, and feelings

- Sold as powder, crystals, pills, or on blotter paper
- Taken orally, rectally, or by insufflation
- Marketed as a cheaper form of LSD – More powerful symptoms
NPS: What are the adverse effects?

Synthetic Hallucinogens

**Short-term effects**

- Seizures
- Headaches
- Kidney failure
- Sweating and flushing
- Increased pulse
- Elevated temperature, heart rate, and blood pressure

**Short-term effects**

- Itching
- Vomiting
- Confusion
- Delirium
- Agitation and aggression
- Significant, rapid toxicity
- Overdose/death
NPS: What are the adverse effects?
Synthetic Hallucinogens

- Very little research into the long term effects

- Reported long term effects include:
  - Memory loss
  - Speech impairment
  - Persistent anxiety
  - Depression and suicidal thoughts
  - Disorganized thinking
  - Paranoia
  - Mood changes
  - Flashbacks
**NPS: What are the types?**

**Synthetic Opioids**

**Opiates**
- Narcotic analgesic derived from a opium poppy (natural)
- Not manufactured by chemical synthesis
- Derived from the opium poppy plant

**Opioids**
- A synthetic narcotic that mimics the natural poppy plant
- Chemically manufactured narcotics
- Narcotic analgesic that is not found in nature
NPS: What are the types?

Synthetic Opioids

- Substances that have psychoactive (mind-altering) properties

- Injected, swallowed, smoked, or snorted

- Have medicinal uses but are frequently abused
  - Fentanyl
    - Often mixed with cocaine and heroin—increases potency and danger
  - Methadone
  - Tramadol
  - Bupenorphine (Subtex or Suboxone)
NPS: What are adverse effects?
Synthetic Opioids

- **Short-term side effects:**
  - Nausea and vomiting
  - Constipation
  - Confusion
  - Slowed breathing
  - Death from overdose

- **Long term effects:**
  - Infections
  - Damage to the heart
  - Depression
  - Risk of infectious disease from shared needles
Trends, stats and all of that

Using data to monitor trends in the District of Columbia
Funded by research grants from the (NIDA) National Institute on Drug Abuse

Ongoing national study of behaviors, attitudes, and values of secondary school students, college students, and young adults

Approximately 44,900 8th, 10th, and 12th graders in 382 schools surveyed (self-report)
Use of synthetic cannabinoids
- 3% of 8th graders
- 4% of 10th graders
- 5% of 12th graders

Use of synthetic cathinones (bath salts)
- Use rates did not exceed .9% for 8th, 11th, or 12th graders

These results represent a statistically significant decline from 2012
National data: January 1 – December 31, 2015

- Poison centers received reports of 7,779 exposures to synthetic cannabinoids
- Poison centers received reports of 520 exposures to bath salts
- DC ranked #2 for number of calls
The District has taken a collaborative approach to tracking and responding to the emergence of NPS.

The majority of the data collected in the District of Columbia reflects synthetic cannabinoid use.

Data on synthetic cannabinoid use collected:
- DC Fire and Emergency Medical Services (FEMS) transports
- Drug test results:
  - Hospitals—required to collect blood/urine specimens if a patient presents with symptoms of synthetic cannabinoid use
  - Persons under supervision in the criminal justice system
Trends and Stats
Monitoring Trends in the District of Columbia
FEMS Transports April–December 2015

- Suspected synthetic cannabinoid use recorded by transport provider

- 2,107 transports
  - 15 juvenile transports

- October 2015:
  - Age range 13–78
  - Median age is 36
  - 83% male; 17% female
January 2016– 367 adult and juvenile specimens tested

- 111 (30.2%) positive– synthetic cannabinoids and other drugs
- 102 (27.8%) positive – synthetic cannabinoids only
- 96 (26.2%) positive– other drugs only
- 58 (15.8%) negative
Trends and Stats

Monitoring Trends in the District
Drug Testing—Persons Under Supervision

- Pretrial Services Agency (PSA) for the District of Columbia tests persons under supervision

- PSA partnered with the OCME to research and develop methods for analyzing and testing for synthetic cannabinoids

- October 2015: PSA began using immunoassay screen for synthetic cannabinoids for all incoming specimens
  - Specimens of persons with strong indication of synthetic cannabinoid use referred for additional testing at the OCME
Trends and Stats
Monitoring Trends in the District
Drug Testing– Persons Under Supervision

- **September to December 2015:**
  - 1,287 specimens tested for synthetic cannabinoids
  - 619 positive (48%)

- **January 2016:**
  - 10 specimens tested for synthetic cannabinoids
  - 9 positive (90%)

- High percentage of positive tests attributed to these samples being tested pursuant to staff/court referrals
PSA has an in-house certified laboratory staffed by credentialed professionals.
PSA recently acquired the LC/MS/MS 8040 Shimadzu to test for NPS.
In final process of validation.
Trends and Stats
Monitoring Trends in the District of Columbia

- Trends suggest use of synthetic cannabinoids in the District may be decreasing
  - Since November 2015:
    - Significant decrease in hospital transports
    - Decrease in positive tests for synthetic cannabinoids

- Limitations of data collection:
  - NPS compounds change—metabolites for accurate drug testing may not be available
  - Data does not capture persons who have not had contact with emergency services, hospitals or criminal justice systems
  - Self-reported data may be inaccurate
Curbing the Use and Sale of NPS

The National Response
The District’s Response
Next steps
Curbing the Use and Sale of NPS
National Response

- The Office of National Drug Control Policy (ONDCP) coordinates drug-control activities and funding across the Federal government.

- Inaugural National Drug Control Strategy published in 2010 by the Obama Administration:
  - Established two overarching goals to reduce drug use and its consequences by 2015:
    - Curtail illicit drug consumption in America
    - Improve the public health and public safety of the American people by reducing the consequences of drug abuse.
Curbing the Use and Sale of NPS
National Response

Tracking emerging trends:
- Use of community warning systems
- National surveys/studies
- Data from national reporting agencies

Education and research
- Educational materials:
  - National Institute on Drug Abuse (NIDA) Fact Sheets
  - Webinars
- NIDA and Substance Abuse and Mental Health Services Administration (SAMHSA) funded research grants
  - FY2014:
    - Over $4million for synthetic cannabinoids
    - $37K for synthetic cathinones
    - $760,470 for synthetic hallucinogens
Drug Free Communities Support Programs

- The Drug–Free Communities Support Program is a Federal grant program that provides funding to community–based coalitions that organize to prevent youth substance use.

- FY2015: $86 million in funding to 697 community based programs.
Curbing the Use and Sale of NPS

National Response
Reduction of manufacturing and distribution

Interdiction

- High Intensity Drug Trafficking Areas (HIDTA) Program

- Local and federal partnerships with the Drug Enforcement Agency (DEA), Customs and Border Patrol, and Homeland Security
Legislation:

- Controlled Substance Analogue Enforcement Act of 1986—Federal Analogue Act
  - Allows many NPS to be treated as controlled substances if proven to be chemically or pharmacologically similar to a Schedule I or II controlled substance

- Synthetic Drug Abuse Prevention Act of 2012
  - Permanently places 26 types of synthetic cannabinoids and cathinones into Schedule I
  - Changed maximum period of time DEA can administratively schedule substances under its emergency scheduling authority to 36 months
Curbing the Use and Sale of NPS

National Response
Reduction of manufacturing and distribution

- Synthetic Drug Control Act of 2015 (pending)
  - Bi-partisan congressional effort
  - Strengthens the Federal Analogue Act– facilitates prosecution of distributors
  - Adds list of NPS identified by DEA into Schedule I
  - Focus on distributors rather than users

- Over 44 states have taken action to control synthetic cannabinoids and cathinones
Curbing the Use and Sale of NPS
The District’s Response

- Federal and local agency collaboration and participation in multi-agency cross-cluster working groups
- Swift, progressive, and targeted response to NPS
- Data collection and information sharing among agencies is a priority
Curbing the Use and Sale of NPS
The District’s Response—Legislation/Enforcement

- District of Columbia’s Omnibus Criminal Code Amendments Act of 2012

- April 2014—Department of Consumer and Regulatory Affairs (DCRA) adopted new regulations
  - Aimed at curbing sale and use
  - Allows the District to take enforcement action against a business selling synthetic drugs consisting of substances identified on a controlled substances list, or new variations and derivatives of those substances
Curbing the Use and Sale of NPS
The District’s Response– Legislation/Enforcement

The Right Choice Campaign

- Launched by DCRA summer 2014 to educate store owners about the new laws
- Includes a pledge stores can sign
Curbing the Use and Sale of NPS
The District’s Response – Legislation/Enforcement

February 2015: DCRA adopted regulations targeting the packaging and price of NPS

- Shifted focus from contents
- District officials can treat products that are exorbitantly expensive and contain unusual warnings as NPS
- Businesses can seek clarification from DCRA about whether the product qualifies as a NPS
Curbing the Use and Sale of NPS
The District’s Response– Legislation/ Enforcement

July 2015: Emergency ruling requires collection of urine/blood samples for patients presenting with symptoms consistent with having used a synthetic cannabinoid.
Curbing the Use and Sale of NPS
The District’s Response– Legislation/ Enforcement

Synthetics Abatement and Full Enforcement Drug Control Act (SAFE DC) of 2015

- Introduced November 2015 by the Chairman of the DC Council at the request of the Office of the Attorney General

- Collaboration by the DC Office of the Attorney General’s Emerging Trends Task Force, DC Department of Forensic Sciences, and other local and federal partners

- Synthetic cannabinoids and cathinones will be added to the District’s schedule for controlled substances based on the class of the chemical compounds contained in the drugs rather than the individual compound found in a particular substance
  - Makes it easier to test for and prosecute cases
  - Codifies certain DC Department of Health synthetic cannabinoid and cathinone regulations
Curbing the Use and Sale of NPS
The District’s Response–Legislation/Enforcement

Narcotics and Special Investigations Division–Drug Interdiction Unit of the Metropolitan Police Department:

- Special unit designated to conduct enforcement operations related to NPS
  - Street level enforcement
  - Store inspections
  - Investigations
- Partners with federal, state, and local law enforcement agencies and the U.S. Postal Service to investigate NPS trafficking in the District
Drug testing and data collected from testing supports agencies efforts to:

- Track emerging trends
- Inform legislation/ regulations
- Develop initiatives aimed at education and prevention
- Determine risk as well as supervision (legal) and treatment needs
- Deter use
ATTENTION

Thinking of using synthetic drugs?

THINK AGAIN!

PSA is now testing for synthetic drugs.

Effects of synthetic drugs include severe agitation, anxiety, nausea, vomiting, fast racing heartbeat, elevated blood pressure, tremors, seizures, hallucinations, suicidal and other harmful thoughts and/or actions.

K2    Bizzaro    Spice Silver    Spice
Scooby Snax    Black Mamba    Yucatan Fire    Spice Gold
Curbing the Use and Sale of NPS

The District’s Response — Education and Prevention

K–2 Zombie Campaign

Award winning campaign launched in 2013 by the DC Department of Behavioral Health
Curbing the Use and Sale of NPS
The District’s Response– Education and Prevention

K–2 Zombie Campaign

- Targets youth age 12 to 16

- Designed to raise awareness and highlight dangers of NPS use
  - 92% of youth surveyed had seen or heard about the campaign
  - 88% said they were less likely to purchase or use NPS within 90 days

- Campaign for other at risk populations in development
Curbing the Use and Sale of NPS
The District’s Response—Information Sharing

- CJCC NPS Workgroup
  - Representatives from DC and federal governments
  - Evaluates current policies and legislative options
  - Educates public
  - Focuses on coordination of information, detection, and legislation

- Expanding NPS Workgroup to include representatives from the District, Maryland, and Virginia

- SharePoint site for partners
Curbing the Use and Sale of NPS
The District’s Response – Information Sharing
CJCC NPS Workgroup

DC Public School System
DC Department of Health
DC Public School Charter Board
DC Office of the Attorney General
DC Metropolitan Police Department
DC Department of Forensic Sciences
DC Department of Behavioral Health
Criminal Justice Coordinating Council
DC Office of the Chief Medical Examiner
DC Fire and Emergency Medical Services
DC Department of Consumer and Regulatory Affairs
Pretrial Services Agency for the District of Columbia
Court Services and Offender Supervision Agency
United States Parole Commission
United States Attorney’s Office
United States Probation Office
Drug Enforcement Agency
Public Defender Service
Bureau of Prisons
Curbing the Use and Sale of NPS
Next Steps

- Implications for treatment
  - How can we better diagnose and intervene with individuals who have not come into the system?
  - Develop treatment protocols for medical, mental health, and substance use disorder professionals

- Research
  - What are the long term effects?
  - How many people are actually using?
  - Continue to explore alternate sources of data
Curbing the Use and Sale of NPS

Next Steps

- **Expanded detection**
  - Ability to test for NPS in treatment programs and professions where public safety is a concern
  - Expanded access to testing for jurisdictions

- **Continued education and prevention**
  - Combat misconceptions about “fake weed”
  - Continued education on NPS–new substances continually emerging
Local and national resources
Resources
Local

K2 Zombie
drug prevention campaign
www.k2zombiedc.com

Drug Free Youth
list of DC Prevention Centers
www.drugfreeyouthdc.com
Resources
National

- Drug Enforcement Agency (DEA): www.dea.gov
  - Get Smart About Drugs: A Resource for Parents, Educators, & Caregivers: www.getsmartaboutdrugs.com
  - Get the Facts About Drugs: Just Think Twice: www.justthinktwice.com
  - Drug Scheduling

- Above the Influence: www.atipartnerships.com
- Partnership for Drug Free Kids: www.drugfree.org
- National Institute on Drug Abuse (NIDA)– National Institutes of Health (NIH) www.drugabuse.gov
- American Association of Poison Control Centers 800–222–1222 www.aapcc.org
Resources
National

- Office of National Drug Control Policy: www.whitehouse.gov/ondcp
  - Parents Webinar: Evidence-Based Strategies to Prevent Substance Use www.youtube.com/watch?v=4zbTtRT7wCg
  - Webinar: Reducing Use and Availability of New Psychoactive Substances www.youtube.com/watch?v=sprd2Gu5tow
  - www.whitehouse.gov/ondcp/drug-free-communities-support-programCESAR: www.cesar.umd.edu
  - FAX Synthetic Cannabinoid Series www.cesar.umd.edu/cesar/pubs/SyntheticC
  - www.ndews.org
  - NDEWS Presents: monthly webinars convened by the NDEWS Coordinating Center to explore emerging drugs and timely drug-related topics

- National Survey on Drug Use and Health: www.nsduhweb.rti.org/respweb/homepage.cfm
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THANK YOU!

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