- Lessons from the Field -

Knowing the Facts About Fentanyl

JANUARY 17, 2023
3:00 - 4:30 PM ET

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1. Introduction and Logistics
2. Welcome
3. Setting the Context and Understanding the Facts
4. Addressing the Fentanyl Problem
5. Closing Remarks
6. Live Q&A
## Context Setting Speakers

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<th>Role and Organization</th>
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Bios for the speakers are archived at the following location: https://safesupportivelearning.ed.gov/events/webinar/lessons-field-webinar-part-1-knowing-facts-about-fentanyl
Elyse Robertson
FEDERAL PROGRAM OFFICER
OFFICE OF SAFE AND SUPPORTIVE SCHOOLS
U.S. DEPARTMENT OF EDUCATION
Chris Didier
FAMILY IMPACTED BY FENTANYL
PARENT ADVOCATE
DIDIER.CJ@GMAIL.COM
WHO IS ZACH?
• Zach bought a Percocet via social media.
• But the pill was a counterfeit made of fentanyl; aka: ‘Fake Pill.’
• Zach died shortly after in his room. He never had a chance.

TOXICOLOGY RESULTS: Fentanyl intoxication. (No Percocet)

• Not a party death; not an overdose; not an addiction casualty
1. Cellphones:
- Many teens have them
- Become reliable & trusted resource
- Very popular

2 INFLUENCERS:

2. Legitimate Prescription Pills:
- Many teens prescribed to them
- Siblings, family and friends too
- Pills are more Normalized

1. Legit Prescriptions give appearance of a “safe” product

2. Cellphones give appearance of a “trusted” solution

Potential for deception and unperceived Danger
FENTANYL IN VAPES

**Fentanyl Used in Vape Pens**

- Nurse & 2 SROs treated for symptoms of exposure (Narcan) following use of a vape pen at Sequoyah HS in Madisonville, TN on Nov 30, 2021.
- 17 y.o. student arrested for possession.

- Mifflin Co. High School, PA in late Feb 2022: 3 vape pens found containing fentanyl or heroin, student arrested.
- Student medical emergency -- investigation ongoing.

**DEADLY DRUGS FOUND IN VAPING DEVICES**

Source: Mifflin County High School
So how do we recover?

- Learn & share about the evolving danger
- Many lanes
- Get to the kids
  - Schools / Districts
  - County DA office
  - DEA reps / Local law enforcement

And survive.... TOGETHER
Fentanyl killed this many people in 2022
Fentanyl and Youth:
An Update for Educators

Cecelia Spitznas, Ph.D.,
The White House

January 17, 2023
Drug Poisoning Deaths Involving Selected Drug Classes 1999-2020

Number of Deaths

- Cocaine
- Heroin*
- Opioid Analgesics**
- Psychostimulants (methamphetamine)
- SOOTM (fentanyl)
What is Fentanyl?

- **Opioid**—a drug that binds to & activates opioid receptors in brain & body
- **Fast-acting & short-acting**
- **Highly potent**—many times stronger than morphine
- **Analgesic** pain medicine
- **Anesthetic** sensation dulling medicine
- **Synthetic**—100% man-made (many other opioids come from poppy)
- **Both an FDA approved medicine and an illicitly imported drug**
Fentanyl is short-acting and has many surgical and medical uses
An Anesthesiologist or Nurse Anesthetist can infuse tiny doses by IV during surgery that wear off quickly
Surgeons have a whole team to maintain patient’s airway
Short-acting medicine (lozenges, tablets) for uncontrolled “breakthrough pain” add to regimen that requires round-the-clock pain care
Fentanyl patch: a time release patch for long duration pain control. Indicated for certain types of chronic pain when other medicines are no longer working
Label for prescription products instructs prescribers never to use on patients without opioid tolerance (recent experience with use) or as round-the-clock opioids.
Fentanyl can cause sedation in inexperienced people
It is addictive
What are Fentanyl Analogues?

- Medications and illegal synthetic opioids that are similar to, but chemically slightly different than fentanyl
- Changes in chemical structure can increase or decrease binding
- Carfentanil—a veterinary drug for large animals is many times more potent than human medication
- More dangerous if more potent

Variations in Fentanyl Structure
Varandyan, 2017
Fentanyl “Misuse” & Illicit Use

- People in opioid addiction treatment do report misuse of prescription fentanyl products (Schepis, et al. 2019.)
- However, generally deaths & law enforcement seizures involve illicitly imported fentanyl NOT pharmaceutical fentanyl (Gladden, et al. 2016.)

Why Are We Seeing Synthetic Drugs Now?

- Opioid tolerance develops over time requiring higher doses or more potent products
- Existing market 2000-2012 of people who were prescription opioid dependent & ready for a more potent product
- Fentanyl analogues previously not controlled
- Easy to create and ship clandestinely vs plant-based drugs
  - Made in labs so no need to hide fields of flowering plants (e.g. poppy for heroin)
  - Concentration/potency means much smaller packaging
  - Hard to search all packages and containers entering the country, especially via the mail
  - Can slip into pills or powder drugs can be made from them; they can be mixed into routinely used illicit drugs
Cathleen Drew

SENIOR PREVENTION PROGRAM MANAGER
COMMUNITY OUTREACH & PREVENTION SUPPORT SECTION
DRUG ENFORCEMENT ADMINISTRATION (DEA)
Emerging Drug Threats

Illicit Opioids
The record quantities of fentanyl that DEA seized in 2021 are enough to kill every American.
Potentially Lethal Dose of Fentanyl
Fake Pills

• Drug traffickers are using fake pills to exploit the opioid crisis and prescription drug misuse in the U.S.

• Even if users know they’re not actually prescription pills, there’s no way to tell how much fentanyl a pill might contain.

• If users believe they are handling actual prescription pills, there’s an even greater danger of overdose.

Made to look like prescription opioids—such as oxycodone, hydrocodone, and alprazolam; or stimulants like amphetamines—but contain fentanyl or meth
DEA LAB TESTING REVEALS THAT
6 OUT OF EVERY 10 PILLS
WITH FENTANYL CONTAIN A POTENTIALLY
LETHAL DOSE

Fake pills often contain fentanyl and are more lethal than ever before.

DEA officials report a dramatic rise in the number of fake pills containing at least 2 mg of fentanyl, which is considered a deadly dose.

Drug traffickers are using fake pills to exploit the opioid crisis and prescription drug misuse. The Centers for Disease Control and Prevention reports more than 100,000 drug overdose deaths in the United States in the most recent 12-month reporting period, the most ever recorded.

Fentanyl, the synthetic opioid most commonly found in fake pills, is the primary driver in this alarming increase in overdose deaths.
Recent Alarming Trends that are Increasing the Levels of Risk for our Youth

A recent study revealed teens are underestimating the dangers of fentanyl:

- Only one-third to one-half of young Americans KNOW that fake pills are manufactured with fentanyl.
- Only 40% of Americans aged 13-24, and 31% of teens called themselves knowledgeable about fentanyl.

Source: Song for Charlie Youth Fentanyl Survey Fall 2022
Most Common Counterfeit Pills

- Oxycontin®
- Adderall®
- Xanax®
Authentic Oxycodone

Fake Oxycodone
Authentic Xanax

Fake Xanax
Medical grade fentanyl laboratory
Illicit fentanyl laboratory
Shelf contains approximately 1.2 Million Fentanyl Pills
Street Names

Fentanyl
- Apache
- China Girl
- China Town
- Dance Fever
- Friend
- Goodfellas
- Great Bear
- He-Man
- Jackpot
- King Ivory
- Murder 8
- Tango & Cash

Opioids/Narcotics
- Smack
- Horse
- Mud
- Brown Sugar
- Junk
- Black Tat
- Big H
- Dover’s Powder
- MPTP (New Heroin
- Lean or Purple Drank
- OC, Ox, Oxy
- Oxycotton
- Sippin Syrup

COMMON EMOJI CODES

FAKE PRESCRIPTION DRUGS

PERCOCET & OXYCODONE

XANAX

ADDERALL

A -
Additional Threat: Access

Fake Rx pills are easily accessible & often sold on social media & e-commerce platforms; available to anyone with a smartphone.
Prevention Support Resources

Websites

GET SMART ABOUT DRUGS
A DEA Resource for Parents, Educators & Caregivers
www.getsmartaboutdrugs.com

For Parents, Educators, and Caregivers

JUST THINK TWICE
A Resource for Teens
www.justthinktwice.com

For Teens

OPERATION PREVENTION
www.operationprevention.com

For Teachers
For the Workplace

Campus Drug Prevention
www.campusdrugprevention.gov

For Higher Education
Prevention Support Resources

Publications

Download at: getsmartaboutdrugs.com/publications
Working to Help Make Communities Safer and Healthier

Contact Information

Catie Drew
DEA Community Outreach and Prevention Support
Office of Congressional & Public Affairs

Call us: 202.307.7936
Email us: community.outreach@dea.gov
Online: dea.gov/community-outreach
Marci Hertz

ASSOCIATE DIRECTOR, PROGRAM IMPLEMENTATION
DIVISION OF OVERDOSE PREVENTION
NATIONAL CENTER FOR INJURY PREVENTION AND CONTROL CENTERS FOR DISEASE CONTROL AND PREVENTION
Lessons from the Field: Fentanyl

U.S. Department of Education and Center for Disease Control and Prevention

Marci Hertz, MS
Associate Director for Program Implementation
Division of Overdose Prevention
National Center for Injury Prevention and Control

January 17, 2023

The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
Fentanyl Overview

• Synthetic opioid that is up to **50 times stronger than heroin** and **100 times stronger than morphine** (DEA, 2020)

• Two types:
  • Pharmaceutical fentanyl
  • Illicitly manufactured fentanyl (IMF)

• Estimated that by **2029, over 1.2 million people will die from fentanyl and other opioids if no action is taken**

• Youth at-risk due to:
  • Drugs laced with fentanyl are more available and accessible—including in **counterfeit pills** commonly available to youth and young adults via **social media platforms** (DEA, 2021)
  • **Low tolerance** threshold
  • **Lack of awareness** about fentanyl and its presence in other substances

Counterfeit pills often contain fentanyl and are more lethal than ever before. These pills are easy to purchase and look like prescription drugs.
Almost 80,000 people aged 5-24 years have died from a drug overdose since 1999, (including over 27,500 from 2015-2020).

Nearly 25% of adolescent overdose deaths involved counterfeit pills which often contain fentanyl or other illicit drugs (Tanz et al. 2022).
Overdose mortality in adolescents has risen dramatically, driven by illicitly-manufactured fentanyl.
Compared with the gap among adults, the gap in overdose deaths between AI/AN populations and White Americans is even higher among adolescents.

## Youth High Risk Substance Use

### Risk Factors for High-Risk Substance Use

Risk factors for youth high-risk substance use can include:

- Family history of substance use
- Favorable parental attitudes towards the behavior
- Poor parental monitoring
- Parental substance use
- Family rejection of sexual orientation or gender identity
- Association with delinquent or substance using peers
- Lack of school connectedness
- Low academic achievement
- Childhood sexual abuse
- Mental health issues

### High-Risk Substance Use Prevention

Research has improved our understanding of factors that help buffer youth from a variety of risky behaviors, including substance use.

These are known as protective factors. Some protective factors for high risk substance use include:

- Parent or family engagement
- Family support
- Parental disapproval of substance use
- Parental monitoring
- School connectedness

https://www.cdc.gov/healthyyouth/substance-use/index.htm
1. Educating about the dangers of illicitly manufactured fentanyl (IMFs) and counterfeit pills
2. Having naloxone available
3. Ensuring access to effective, evidence-based treatment for substance use disorders and mental health conditions
4. Educating family and friends to recognize drug use warning signs
5. Learning how to respond to an overdose
6. Monitoring youth who exhibit risky behaviors
Fentanyl is up to 50x more potent than heroin and 100x more potent than morphine. Learn more about the dangers of fentanyl and how it has taken over the drug supply.

Polysubstance use occurs when two or more drugs are taken together, either intentionally or unintentionally. Learn more about the risks and consequences of mixing different types of drugs.

Naloxone is a safe medication that can reverse an overdose from opioids, including heroin and fentanyl. Learn more about where to get naloxone and how to use it.

Addiction is a disease, not a character flaw. There are many ways to treat substance use disorders. Learn more about what options are available and how to support loved ones on their recovery journey.

SOURCE: https://www.cdc.gov/stopoverdose
Thank you!

The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
Fentanyl and the Brain

Emily B. Einstein, Ph.D.
Chief of Science Policy
National Institute on Drug Abuse
µ-Opioid Receptors in the Brain and Body

Volkow and McLellan 2016
Drugs and Natural Rewards

ACTIVATE Dopamine in Reward Regions
The fine balance in connections that normally exists between brain areas active in reward, motivation, learning and memory, and inhibitory control becomes severely disrupted in addiction. Prevention and Treatment aim to avoid or restore this balance.
Increased Risk of Addiction with Early Initiation

Probability of developing problematic use (%)

Source: Anthony and Petronus Drug and Alcohol Dependence 1995
Fentanyl: High Risk of Overdose

- Fentanyl is extremely potent and enters the brain very rapidly
- Its respiratory depressant effect can be maximized within 2 minutes of injection
- Someone experiencing a fentanyl overdose may exhibit:
  - Unconsciousness
  - Vomiting
  - Slow/shallow breathing
  - Very small pupils
  - Purple lips/fingernails
The Current Drug Supply is Much More Dangerous Than Ever Before

The New York Times

In Cities Where It Once Reigned, Heroin Is Disappearing

DEA Issues Public Safety Alert on Sharp Increase in Fake Prescription Pills Containing Fentanyl and Meth

DEA Warns that International and Domestic Criminal Drug Networks are Flooding the United States with Lethal Counterfeit Pills

(U) Deadly Contaminated Cocaine Widespread in Florida
Naloxone is an opioid receptor antagonist. It blocks activity of opioid receptors in the brain to reverse opioid overdose.

*Narcan®, Kloxxado®, Generics available*

—|- = Opioid Receptor Antagonist
Treating Fentanyl Overdoses

- Deaths increasing despite naloxone
- OD require multiple naloxone doses
- Naloxone $t_{1/2}$ (1.3–2.4 h) shorter than fentanyl (7-8 h)
- Very fast entry of fentanyl into brain
- Chest wall rigidity from fentanyl

Naloxone rapidly occupies MOR in brain

Johansson et al Neuropsych 2019
Drug Use and Addiction Can be Prevented
Prevention Intervention Strategies

Decrease RISK

Early Aggressive Behavior
Poor Social Skills
Lack of Parental Supervision
Neglect
Substance Use
Drug Availability
Poverty

Enhance PROTECTION

Self Control
Parental Monitoring & Support
Positive Relationships
Academic Competence
Anti-Drug Use Policies
Strong Neighborhood

Individual
Family
Peers
School
Community
Universal Substance Use Prevention May Reduce Later Misuse of Opioids

In this study, for every 100 young adults in general population starting opioid misuse, only 35 young adults from an intervention community started.

Notes: General=Misuse of opioids or CNS depressants or stimulants. R Spoth et al. (2013) American Journal of Public Health

Targeting Youth to Prevent Later Substance Use Disorder: An Underutilized Response to the US Opioid Crisis

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Jennifer Epstein
DIRECTOR, OUTREACH AND EDUCATION
SONG FOR CHARLIE
NCSSLE Lessons from the Field – Knowing the Facts About Fentanyl

January 17, 2023 | Jennifer Epstein
With Fentanyl in the Drug Supply, the Number of Young Victims is on the Rise

Coty (forever 17)
Luca (forever 13)
Zach (forever 17)
Issaiah (forever 15)
Olivia (forever 15)
Zelaya (forever 17)
Kinhthi (forever 19)
Brian (forever 18)
Zachariah (forever 17)
Ellison (forever 17)
Tristain (forever 16)
Cal (forever 18)
Deenilson (forever 19)
Layno (forever 15)
Makayla (forever 16)
Youth are Disproportionately Impacted by Fentanyl

Growth in Drug-induced Death
2021 vs. 2018

- 14-18: +152%
- 19-23: +59%
- All Ages: +57%

% Fentanyl-involvement in Drug-induced Death
2021

- 14-18:
  - Fentanyl only: 24%
  - Fentanyl +: 54%

- 19-23:
  - Fentanyl only: 39%
  - Fentanyl +: 41%

- All Ages:
  - Fentanyl only: 43%
  - Fentanyl +: 23%


"fentanyl only": no other opioids, cocaine, benzos, amphetamines
"fentanyl +": fentanyl + other substance
Youth Survey Research

- Commissioned by Song for Charlie and executed by Breakwater Strategy online August 2022
- In addition to questions on fentanyl & counterfeit pill knowledge, questions were asked on mental health, substance use motivations, peer perceptions, & social media.


- Nationwide sample of 1,500 Young Americans aged 13-24; n=612 Teens (13-17) and n=888 Young Adults (18-24)
- Margin of error of plus or minus 2.5 percentage points at the 95% confidence level
- Quotas and weights were used to ensure age cohort national demographic representation
- “Aware”, “Knowledgeable”, & “Dangerous” refer to responses of 7+ out of 10
- Comparisons to 2021 are based on data from “Research on Dangers of Counterfeit Drugs Among Teens and Young Adults” commissioned by Snap Inc. & executed by Morning Consult, 10.2021
Teen Knowledge Gap (Age 13-17)

Perception of harm can be a protective factor

Awareness & Knowledge

- Aware of fentanyl in fake pills: 27% in 2021, 36% in 2022
- Knowledgeable about fentanyl: 20% in 2021, 31% in 2022
- Describe fentanyl as dangerous: 26% in 2021, 51% in 2022
- Unsure of danger: 26% in 2021

Describe as Dangerous (2022)

- Cocaine: 80%
- Heroin: 79%
- Rx Opioids: 61%
- Fentanyl: 58%
- Cigarettes: 54%
- Benzos: 47%
- Stimulants: 43%
- Marijuana: 37%

Yet, 12x more fentanyl-involved deaths than cocaine (heroin deaths too small to measure)
Kristen Gustafson
SECONDARY HEALTH & PE CURRICULUM, INSTRUCTION, AND ASSESSMENT DIRECTOR TEACHER ON SPECIAL ASSIGNMENT (TOSA) BEAVERTON SCHOOL DISTRICT, OR
Strategies to Prevent and Intervene in Fentanyl Use

What are some initiatives, interventions, and strategies to prevent fentanyl use among students or to intervene if a student is using or has overdosed on fentanyl?
Many People Who Use Fentanyl Don’t Know They Are Using It

- Our surveys ask people what they think they used, not what they really used—unless people test their drugs they have no way of knowing for sure.
- People who buy or are given drugs may be seeking an opioid pill, an anti-anxiety medicine or a stimulant including prescribed stimulants like amphetamines, Ritalin and Adderall or illicitly produced cocaine or methamphetamine and end up with a counterfeit pill or powder tainted by fentanyl.
- Uneven distribution of fentanyl in counterfeit pills can mean drugs from the same sources greatly vary in fentanyl quantity and so even fentanyl tolerance cannot protect people.
Naloxone: the antidote for opioid overdose

- High affinity for the opioid receptor – binds to it and essentially removes other opioids reversing opioid related overdose
- Nasal and injectable products for lay people
- People with opioid addiction often are aware of the need to carry naloxone
- Others who encounter misbranded pills (E.g., Adderall or Xanax) or powder drugs (cocaine or methamphetamine) may not understand the need to carry naloxone.
- Youth, parents and educators should have naloxone or access to it
We Need Your Help
Thank You!

Should you have any questions, please contact us at NCSSLE@air.org or 800-258-8413. We are happy to help!

NCSSLE Website
https://safesupportivelearning.ed.gov

Best Practices Clearinghouse
https://bestpracticesclearinghouse.ed.gov/

Next Lessons from the Field Webinars

**February 8, 2023:** Preventing and Addressing Fentanyl Use
**February 22, 2023:** Female Genital Mutilation
Feedback Form

HTTPS://WWW.SURVEYMONKEY.COM/R/LFTF_SESSION36
Live Q&A