

Opioids in the Workplace – NIEHS Spring ‘18

Key considerations:

- 1) Occupational exposure and protection
- 2) Addiction prevention, treatment, and recovery for injured workers
- 3) Availability/ use of Naloxone in a variety of work settings

NIEHS has developed an awareness level training tool, posted on the clearinghouse website. It mainly addresses occupational exposure and protection.



National Institute of
Environmental Health Sciences
Worker Training Program



Prevention of Occupational Exposure to Fentanyl and Other Opioids

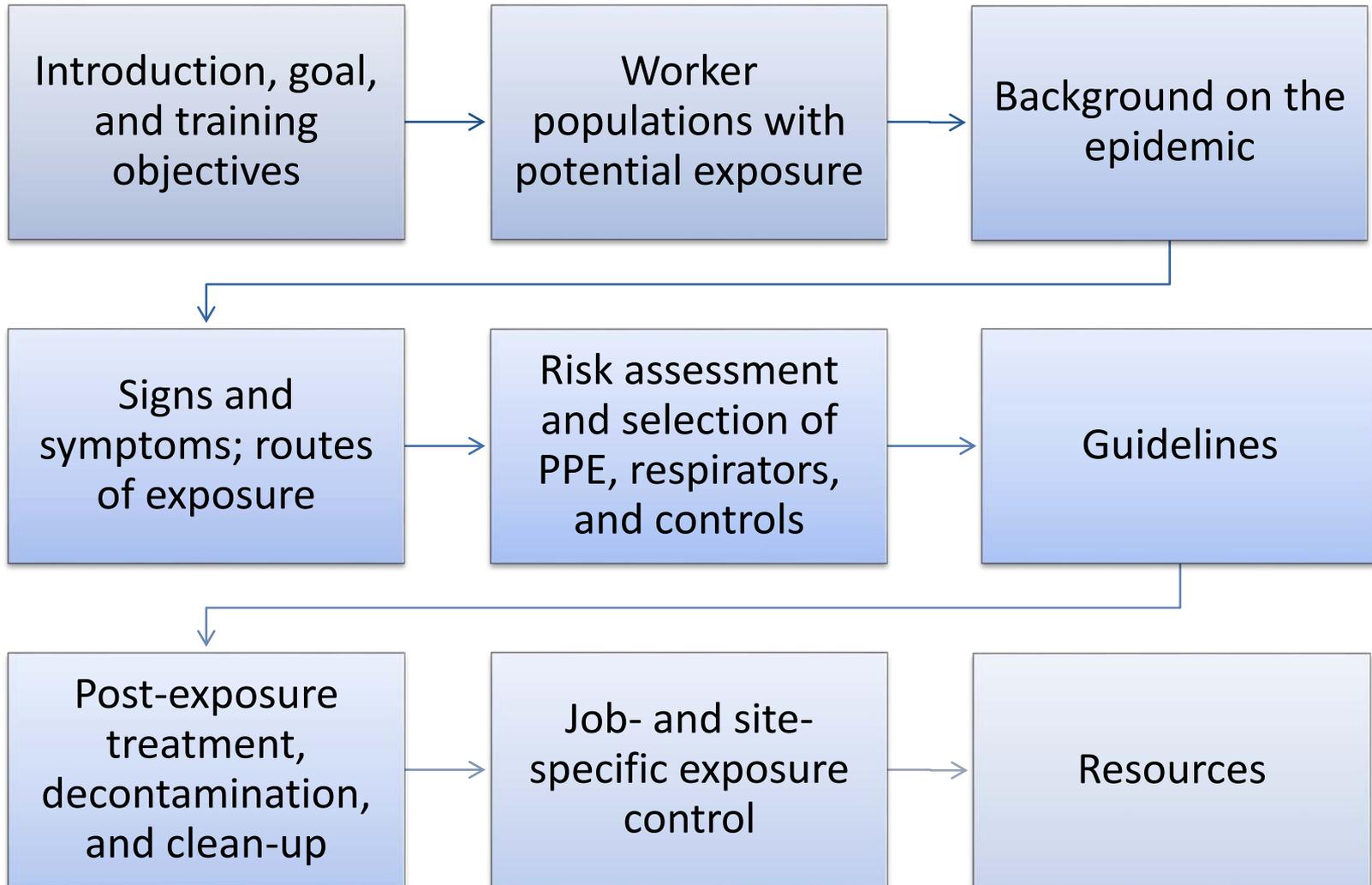
March 2018



Length & Content

- The course is designed as a four hour program.
- Organizations and trainers may integrate or adapt these materials into their training programs.
- The tool is in PPT format and includes 2 small group activities.
- Trainers should develop additional participative activities.
- Content: 1) Intro, goals, objectives; 2) Scope of the problem; 3) Signs and symptoms, routes of exposure; 4) Guidelines and Best Practices; 5) Job specific hazard control and training

Awareness Course Outline



Course Objectives



After completing this course, participants will be able to:

1. **Recognize** occupations with potential exposure to fentanyl and other opiates.
2. **Describe** signs and symptoms and treatment post-exposure.
3. **Explain** use of control measures for worker protection.
4. **Detail** methods for decontamination and clean-up.

CAUTION!

This presentation by itself *is not* sufficient training for personnel who have potential for occupational exposure to fentanyl and other opioids.



- Personnel must be trained to their employer's site-specific policies and procedures. Training must include *practice* putting on and taking off PPE and respirators and performing decontamination procedures until they are confident in doing so.

What Is an Opioid?

- A class of drugs used to reduce pain.
- Prescription opioids are prescribed to treat moderate to severe pain, but have serious risks and side effects. Examples: oxycodone, hydrocodone, morphine, methadone, and fentanyl.
- Illegal opioid: heroin, illegally produced fentanyl and other synthetic opioids.



What Is Fentanyl?

- A powerful synthetic drug, similar to morphine and heroin.
- 50 to 100 times more potent than morphine.
- A rapid-acting synthetic opioid that alleviates pain.
- Acts quickly to depress central nervous system and respiratory function.
- Exposure may be fatal.



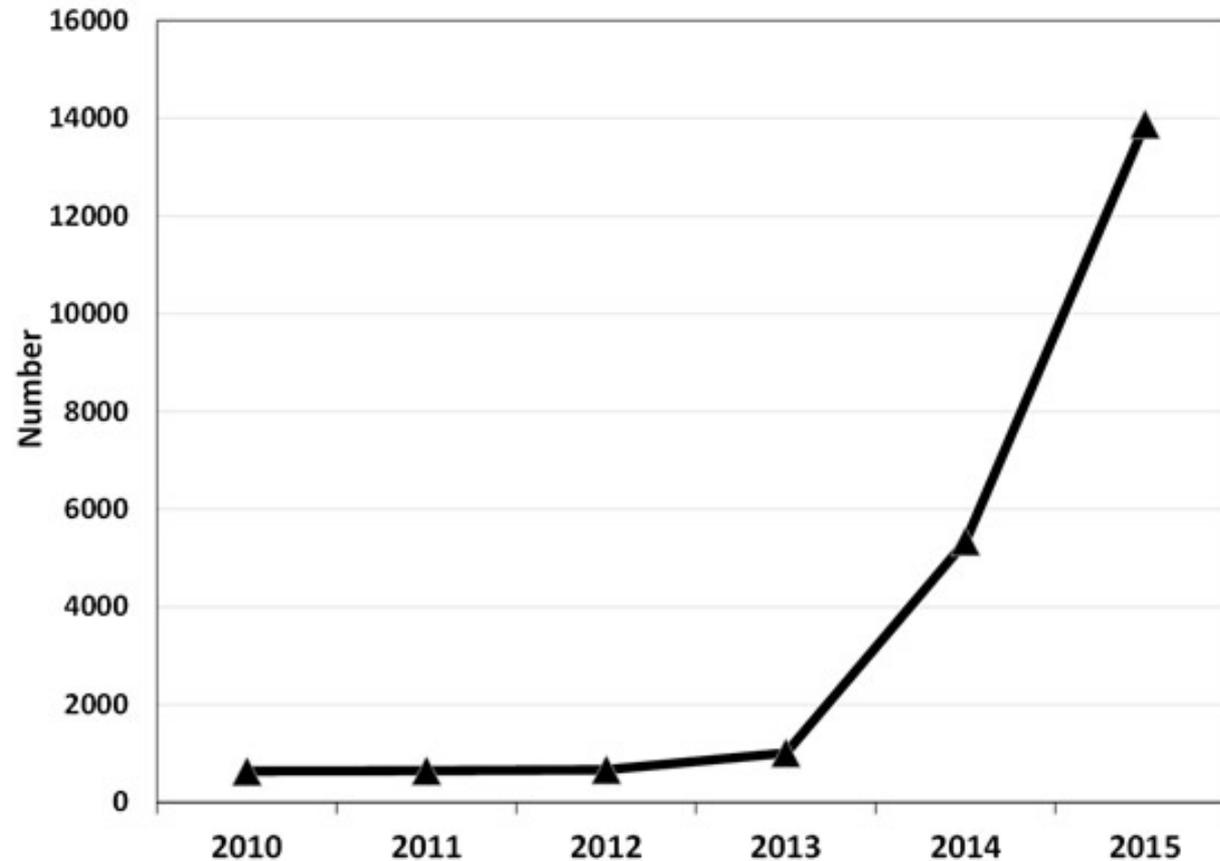
How Much Fentanyl Is Fatal?

2-3 milligrams of fentanyl can induce respiratory depression, arrest, and death.

Comparable to 5-7 grains of salt!



Number of Reported Law Enforcement Encounters Testing Positive for Fentanyl in the U.S. 2010–2015



Worker Populations with Potential Exposure



Small Group Activity



Affected worker populations and job tasks

Time for activity: 20 minutes

Objective: The goal of this activity is to brainstorm which industries and job tasks have potential exposure to fentanyl and other synthetic opioids.

Task: Choose a recorder/reporter. List industries and job tasks that have potential exposure. Report back and discuss.

Worker Populations with Potential Exposure

Industry	Job Tasks
Pre-hospital (EMS)	911 calls involving treating, stabilizing, and transporting overdose cases. Exposure to needles and drug paraphernalia.
Law enforcement	Investigating, frisking, arresting, transporting people with drugs or who have overdosed.
Crime laboratories	Evidence handling and laboratory evaluation of confiscated drugs and drug paraphernalia.
Health care	Emergency department treatment of overdose cases. Use of Illicit opioids in patient rooms.
Environmental services, response and cleanup workers	Cleaning of affected crime scenes, spills, or abandoned drug labs.
Fire service	Fire suppression at contaminated locations.
Public employers (DOT, Highway Maintenance, Parks, Environmental Conservation, Corrections & Parole Officers)	Removal of needles/ drug paraphernalia from public roads, highways, and parks. Confiscation of contraband, searching, arresting.

New York State Department of Transportation Photos



Discarded syringes left in public parks and roadside rest stops.

Scope of the Problem



As many as
1 in 4
PEOPLE

receiving prescription
opioids long term in a
primary care setting
struggles with
addiction.

Prevention of Occupational Exposure to Fentanyl and Other Opioids



More than
40
PEOPLE

die every day from
overdoses involving
prescription opioids.



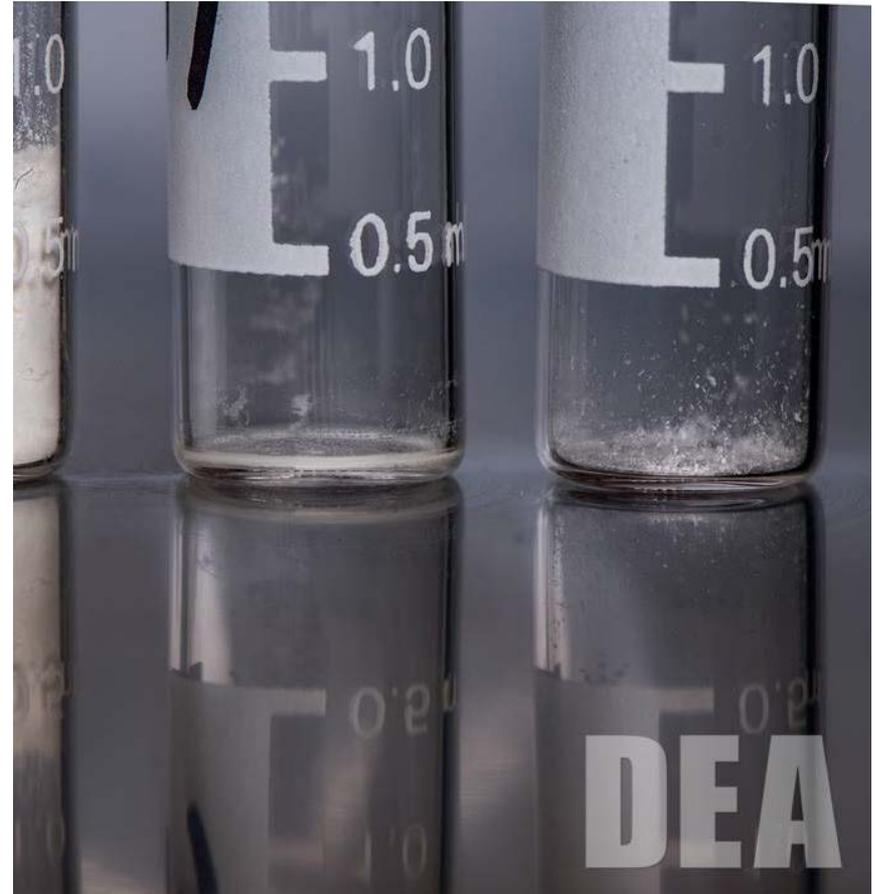
Nearly
HALF

of all opioid overdose
deaths involve a
prescription opioid.



Background on the Epidemic

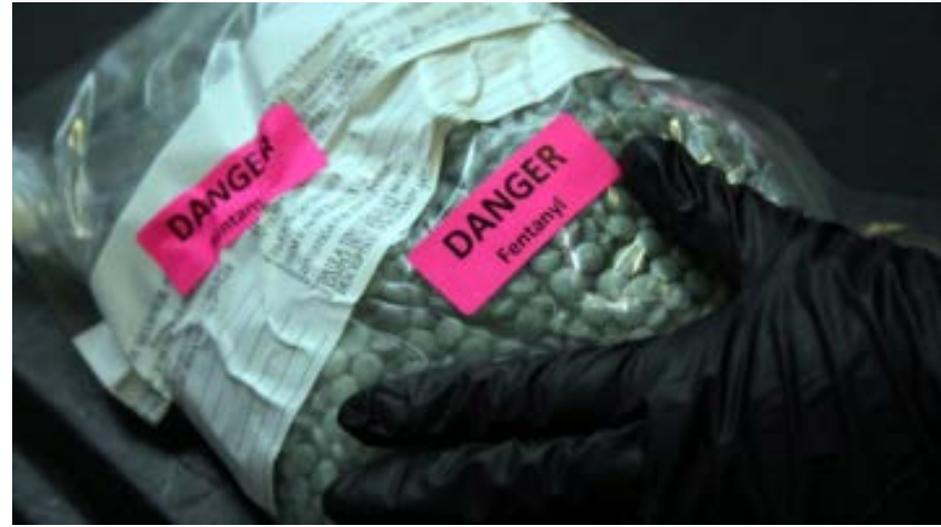
- Fentanyl overdoses  up 540% in 3 years.
- Drug overdoses killed 64,000 in the U.S. in 2016.
- Leading cause of death for Americans under 50.
- Deaths from synthetic opioids, mostly fentanyl, increased from 3,000 (2013) to 20,000 (2016).



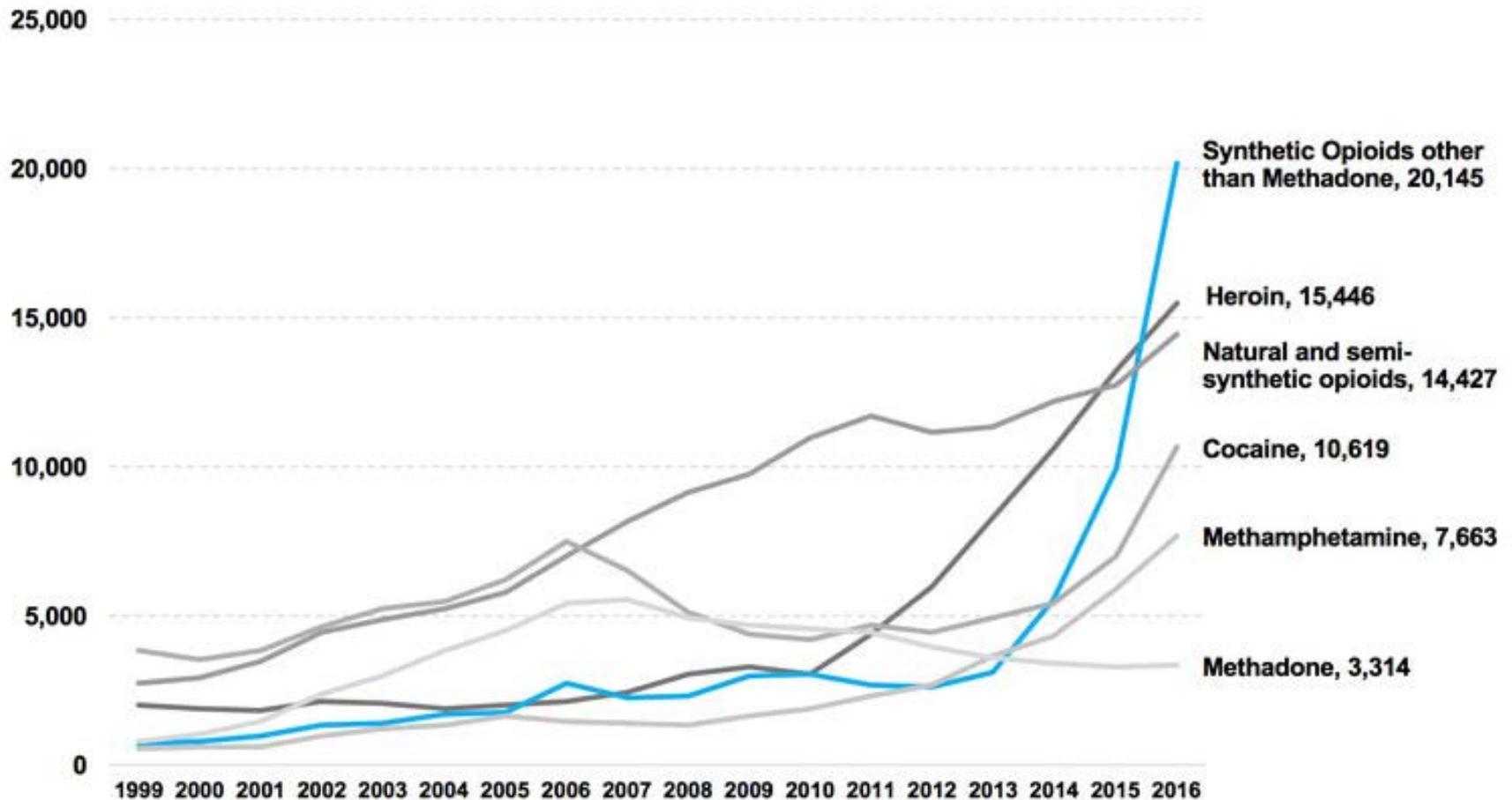
Lethal doses of heroin, carfentanil, and fentanyl
(U.S. DEA photo)

Illicit Opioids Are the Major Cause of the Crisis

- Synthetic opioids are often mixed with heroin and other illicit drugs.
- Formulated into tablets that look like therapeutic drugs.
- Frequently, users don't know that the drug they are using has fentanyl in it.



Drugs Involved in U.S. Overdose Deaths, 2000–2016





Signs and Symptoms; Routes of Exposure



What Are the Routes of Occupational Exposure?

► Inhalation
of powders
and aerosols

Skin, eye, and
mucous
membrane
absorption

Incidental
ingestion
(hand to
mouth)

Accidental
inoculation
with sharps
or needles

Leading science organizations advise that incidental skin contact with dry products is not likely to cause overdoses.

Skin contact with liquid or gel can be highly toxic.

Post-exposure Treatment

- Naloxone (Narcan[®]) should always be on hand when there are potential exposures!
- Naloxone doesn't work with drugs other than opioids
- Naloxone is safe and effective



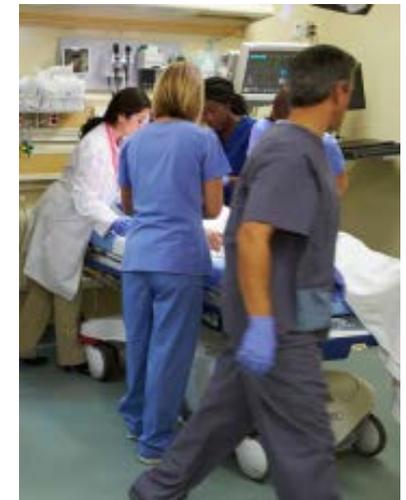
Naloxone (Injectable and Nasal Spray)

Sometimes multiple doses are required.



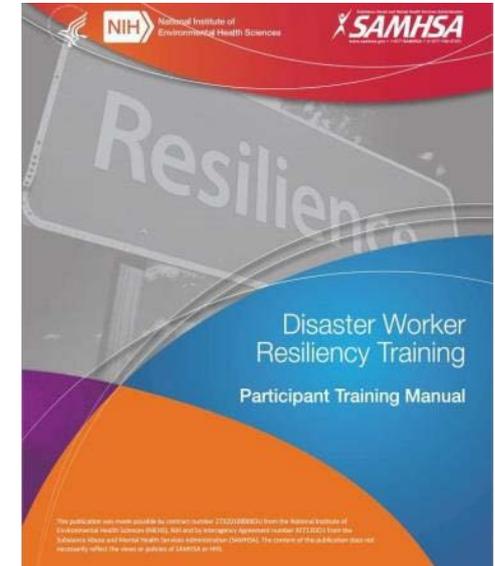
Occupational Exposure Case Reports

- Law Enforcement: Police, Probation, Corrections Officers.
- EMS and Fire Fighters.
- Emergency Department Staff.
- Crime Lab Analysts.
- “Sniffer” Dogs.
- The specific routes of exposure were not identified.
- All were administered naloxone and recovered.



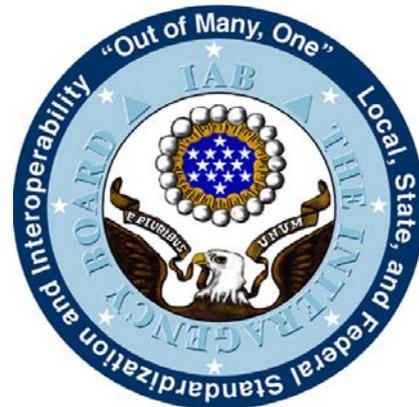
Exposure to Opioids and Overdose Emergencies Are Traumatic Events

- Resilience is the ability to become strong, healthy, or successful again after something bad happens.
- It is normal to have a reaction to an abnormal event.
- Everyone reacts differently to stress and trauma.
- Stress can impact thinking, behavior, social interaction, and cause physical pain.
- Organizations should provide training and other supports to help increase worker resilience.



GUIDELINES AND BEST PRACTICES

We will now review guidelines and best practices from several federal agencies and science organizations.





JOB-SPECIFIC HAZARD CONTROL AND TRAINING

The next few slides show some
occupation-specific concerns.

EMS



Law Enforcement



This photo shows powdered fentanyl on the floor of a car seized during the Ohio arrest.

Clandestine Labs



Opioid Addiction and Work-related Injuries

- 2.9 million work injuries and illnesses reported in 2016.
- We don't know how many of the 64,000 opioid deaths in 2016 began as treatment for work injury.
- Often insurance companies and self-insured employers challenge the necessity of treatment under state workers' compensation systems, causing delays, and continued pain for affected workers and lead to addictions.
- **Solutions:**
 - Prevention of work-related injuries is the primary prevention.
 - Alternative treatments for pain are needed.
 - Eliminating delays in treatment for work injuries.
 - Expand and improve access to addiction treatment.

Support for Addicted Workers

- In healthcare, alternative-to-discipline (ATD) programs help licensed workers recover from addiction and return-to-work without losing their license and career
 - The addicted workers stop practicing during treatment.
 - An individual sobriety and recovery program is established.
 - Return-to-work agreements may involve reduced hours, limited shifts, and restrictions to assignments (no access to narcotics).
 - Continued treatment and monitoring for periods of 2 to 5 years.
- These programs have been successful by providing a non-punitive pathway for addicted workers to obtain treatment and keep their employment.

Should this approach and model be applied to other occupations and industries?

Small Group Activity



Applying what you learned today

Time for activity: 15 minutes

Objective: The goal of this activity is to discuss any potential actions you may take based on today's workshop.

Task: Choose a recorder/reporter. List job categories and job tasks that have potential exposure. Report back and discuss.

Resources

1. [Fentanyl: Preventing Occupational Exposure to Emergency Responders](#) – CDC
2. [IAB First Responder PPE and Decontamination Recommendations for Fentanyl](#)
3. http://www.acmt.net/_Library/Fentanyl_Position/Fentanyl_PPE_Emergency_Responders_.pdf – ACMT/AACT Position Statement
4. [Fentanyl: A Briefing Guide for First Responders](#) – DEA
5. [Fentanyl Safety for First Responders](#)
6. [Back From the Brink: Need for Narcan](#) (video) – Connecticut Department of Mental Health and Addiction Services (CTMHAS)
7. [DEA Officer Safety Alert: Fentanyl – A Real Threat to Law Enforcement](#) (video)
8. [DEA Warning to Police and Public: Fentanyl Exposure Kills](#)
9. [Fentanyl Safety Recommendations for First Responders](#) – NIOSH/ CDC