

# **DRUG RELATED DEATHS**

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# **DRUG DEATH ANNUAL STATS**

**PA 2014- 2,689 deaths from drug poisoning (updated)**

Estimated eight people die every day in PA from drug related causes

**PA 2015- 3,505 deaths from drug poisoning**

Estimated ten people die every day in PA from drug related causes

**PA 2016- 4,812 deaths from drug poisoning**

Estimated thirteen people die every day in PA from drug related causes

**2014 - 2015: ~20% increase in drug deaths**

**2015 - 2016: ~37% increase in drug deaths**

**2014 – 2016: ~78.5% increase in drug deaths**



## **OTHER STATS**

**The age of death from an overdose ranges from stillborn (baby boy with heroin) to 96 years old.**

**Two-thirds of the deaths are single (never married, divorced, widowed) males.**

**Urban counties represent 78% of the deaths, while rural counties represent 22% of the deaths.**

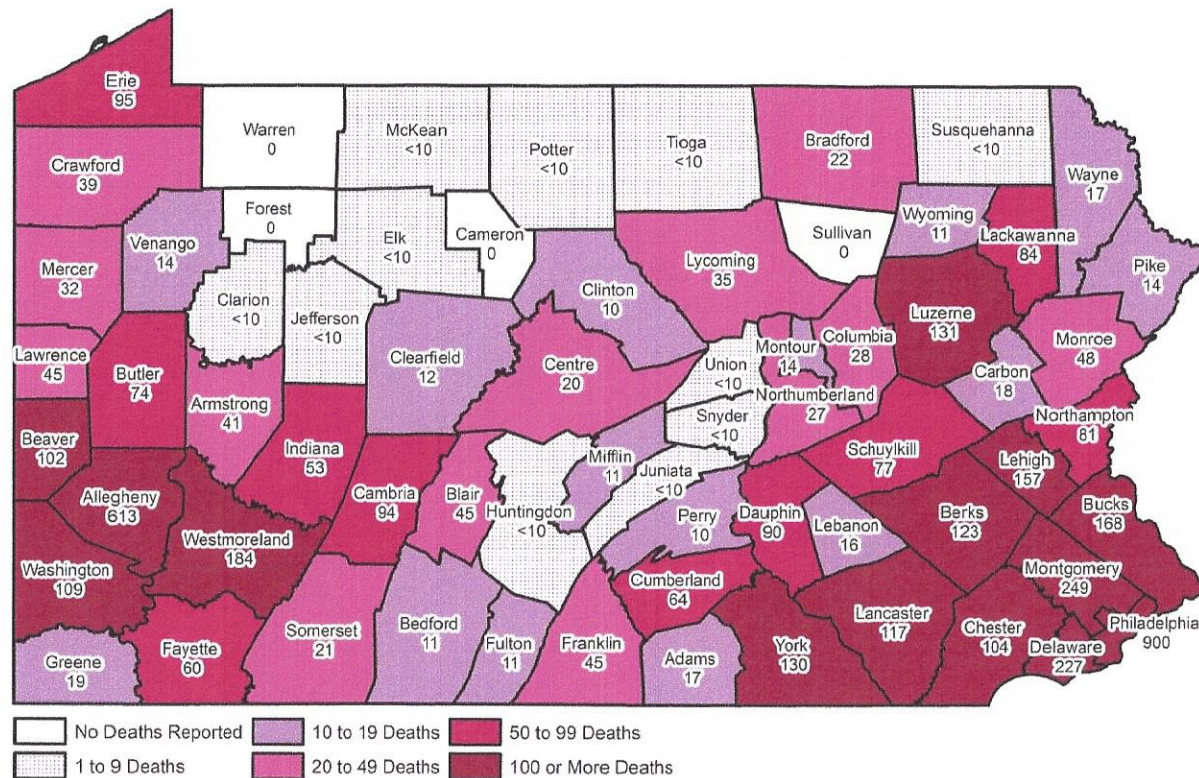
**Majority of deaths occur to persons in the 35 – 45 age range.**

**The typical decedent is a white male age 41 who is single.**

**The deaths usually occur over weekends and occur between 4 PM and 8 AM, a factor which should be recognized in establishing treatment options and the ability to access treatment.**

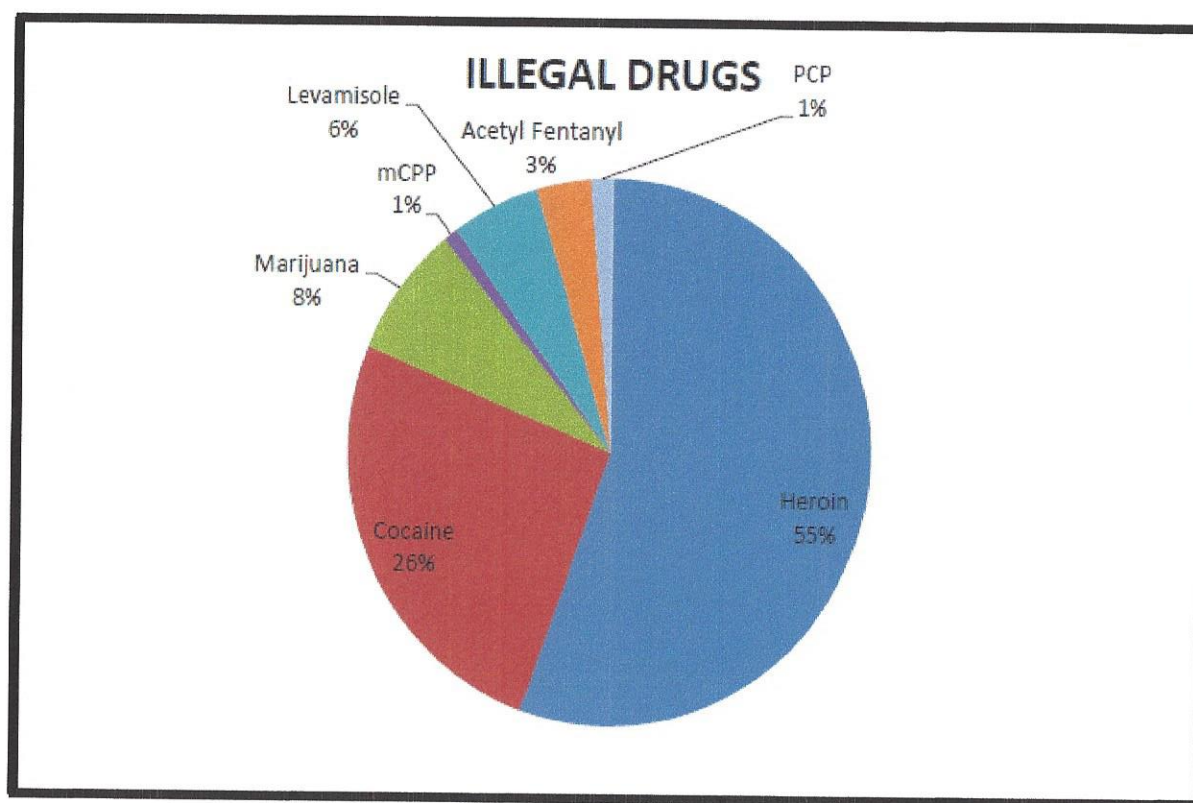


# 2016 NUMBER OF REPORTED DRUG DEATHS BY COUNTY



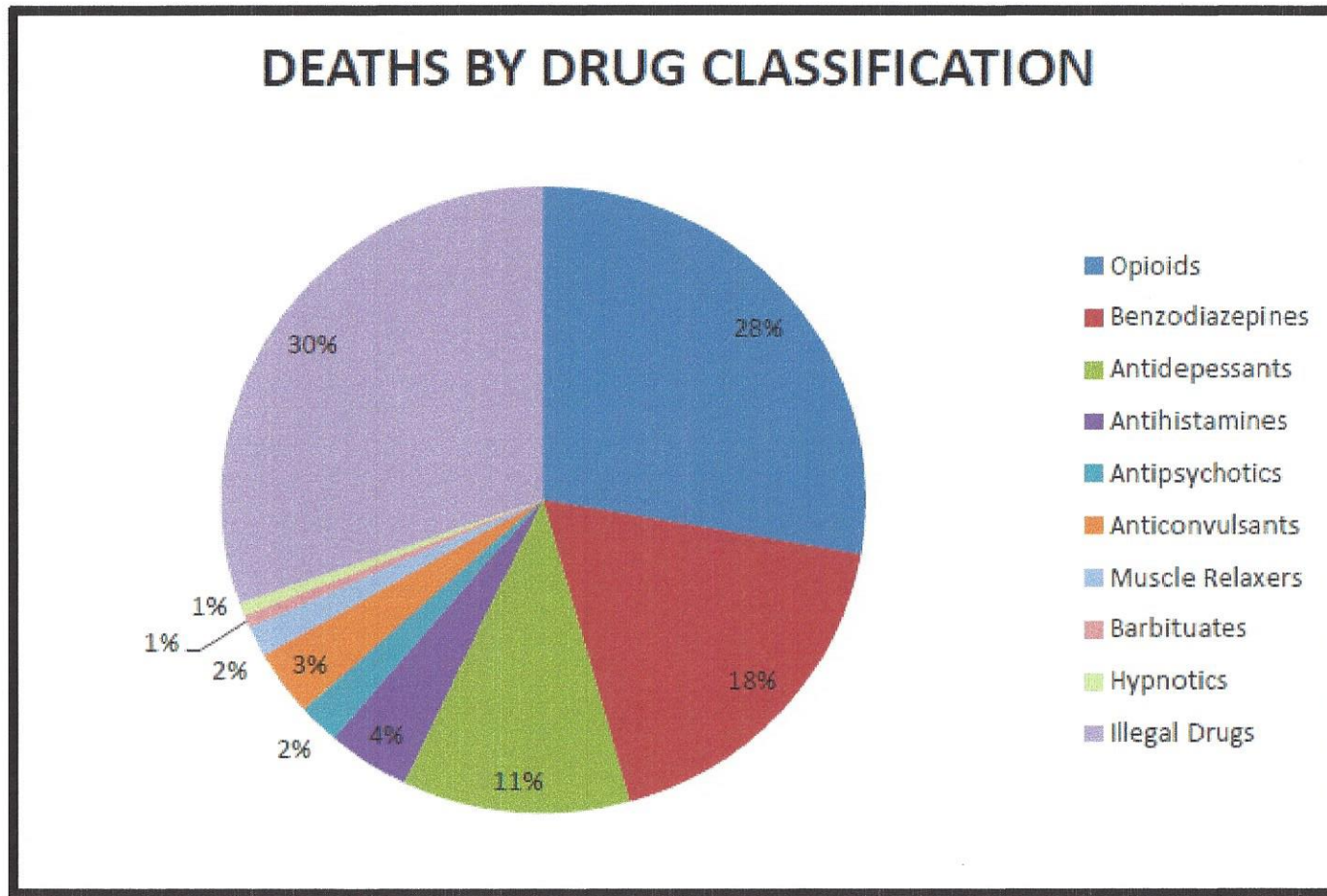


## OD BY SPECIFIC ILLEGAL DRUGS, 2015





# DEATHS BY DRUG CLASSIFICATION, PA





# **OPIOIDS PRESCRIBED TO TREAT ADDICTION/OVERDOSE**

## **Methadone**

- ▣ Prescribed in clinics under regulation of the Substance Abuse and Mental Health Services Administration (SAMSHA) and PA Drug and Alcohol programs

## **Buprenorphine (Suboxone or Subutex)**

- ▣ Prescriber needs to secure a DEA authorization
- ▣ 20-50 times more potent than morphine

## **Naloxone (Narcan)**

## **Naltrexone – Opiate antagonist**

- ▣ Vivitrol – IM

**Approximately 13% of the drug deaths test positive for these substances**



# **HEROIN**

**DEA lists heroin as the greatest drug threat for 2016**

- Greater than cocaine, methamphetamine, marijuana, and CPDs (controlled px drugs)

**Increase in purity results in more inhalation of heroin vs. injection- more users**

**Opioid drug synthesized from morphine**

**Opium is naturally occurring in seed pod of Asian poppy plant**

**Usually appears as white or brown powder, or as a black sticky substance**





# **FENTANYL**

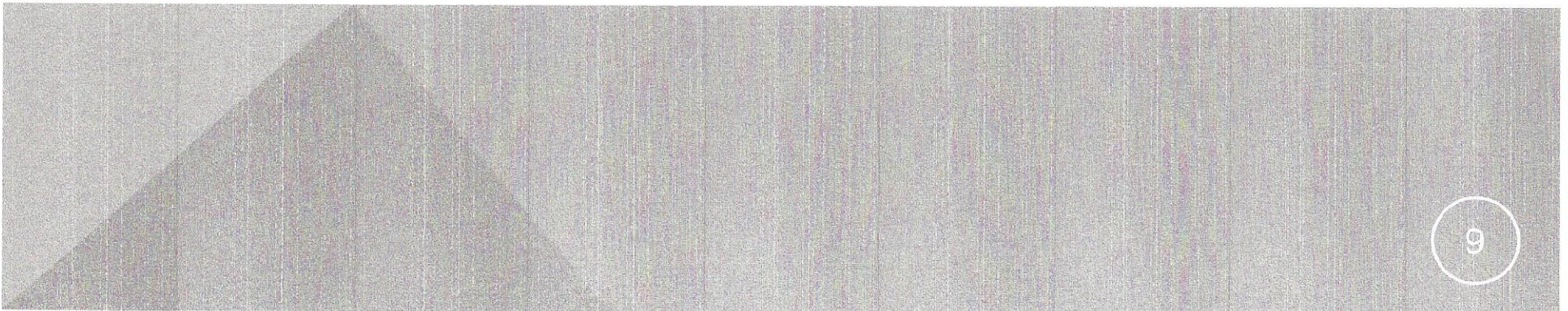
**Starting in 2013-current- has become a threat**

**Acetyl-fentanyl- analog of fentanyl**

**Eastern US is most affected area- heroin is sold as a white powder here, so fentanyl is mixed in easily as it is also a white powder**

**Also pill form- counterfeit prescription pills have been found in the US drug market that contain deadly amounts of fentanyl**

**40-50 times more potent than heroin, 100 times more potent than morphine**





# LETHAL DOSE









# **DANGERS OF HANDLING FENTANYL**

**Easily and quickly absorbed through skin**

**Effects: disorientation, coughing, sedation, respiratory distress, or cardiac arrest**

**Occur within MINUTES of exposure**

**Due to the short half-life of Narcan repeated dosing may be required to adequately resuscitate exposed persons.**

**If inhaled- move to fresh air, seek immediate medical attention**

**If ingested- wash out mouth with water and seek immediate medical attention**



**PENNSYLVANIA DEPARTMENT OF HEALTH**

**2017– PAHAN — 367-01-17-ADV**

**Extreme Danger Posed by Carfentanil**

**OHIO police officer overdosed from touching fentanyl as he was collecting evidence at scene.**

**It may be sold as heroin but it may contain other substances such as fentanyl or one of its analogs, cocaine, or other synthetic drugs.**



## **FENTANYL ANALOGS**

**Acetyl fentanyl**

**Acetyl fentanyl**

**Furanyl-fentanyl**

**3-methylfentanyl**

**Carfentanil- analgesic for large animals  
like elephants and rhinoceroses, 100  
times more potent than fentanyl**

■ **1/1,000,000 of a gram can affect a human**



# SYNTHETIC OPIOIDS

## **W-18: not a fentanyl analog**

- 1-4-Nitrophenylethyl piperidylidene-2-4-chlorophenyl sulfonamide
- Similar to carfentanil
- **Synthetic opioid 100 times more potent than fentanyl and 10,000 times more potent than morphine**
- Found drug dealers providing this with narcan

## **U-47700**

- Opioid analgesic developed in the 1970s
- Never studied in humans, never marketed for use
- Effects: analgesia, central nervous system depression
- Potency: 7.5 times more potent than morphine
- Tox. Lab- 17-490 ng/ml , recent case: **2300ng/ml**

## **GRAY DRUG DEATH**

A combination of heroin, fentanyl and U-4770

Looks like cement mix, hence the name



# OPIOID POTENCY





# **DRUG STRENGTHS**

**Illegal drugs today are far more pure and considerably more toxic than in the 70s and 80s.**

**And this is particularly true of the synthetic drugs.**

**Mixing heroin and fentanyl has resulted in deaths where when the individual is found, the needle is still stuck in the arm. That is how fast the drug causes respiratory arrest.**

**The marijuana sold on the streets has a very high THC level. The PSP have reported the drug is the primary reason for drugged driving, which now exceeds drunk driving.**

**And the prescription drugs which were developed for the use of cancer patients are being used for all manner of pain treatment and are addictive.**



# **COMPONENTS OF DRUG DEATH INVESTIGATION**

**Pre Arrival Info from Dispatch and PD**

**Viewing the Scene and Body**

**Evidence on the Body (Needle Marks, Fluids, Foam Cone)**

**Evidence at Scene (Pill Bottles, Pill Counts, Notes, Paraphernalia, text messages and phone calls)**

**Interviews (Witnesses Uncooperative or Under Influence or not found)**

**Review of Medical History and Records**

**Forensic Autopsy**

**Toxicology Testing**

**Additional Information from PD Investigation**





## **COSTS AND TIME**

**Typically an autopsy will cost from \$1,800 to \$2,200.**

**Typically toxicology testing will cost from \$400 to \$1,000 (plus depending on the substances involved in the overdose. As labs need to constantly be able to test for more and newer designer drugs, their costs are increasing.**

**It is not being suggested that a loved one is not worth whatever it costs to determine the cause and manner of death. The cost to the Coroner's office and the county is obviously substantial.**

**A toxicology report typically takes 4 to 6 weeks to be completed by a lab.**

**An autopsy report typically takes 2 to 3 months to be completed.**

**Rural Counties must transport or pay for the transport of the deceased for hundreds of miles to obtain Forensic Autopsy Services.**



## **CAUSE OF DEATH**

**Fundamentally the physiologic process that led to death. For example: gunshot, blunt force trauma, disease, sharp force trauma, asphyxiation, poison.**



# **MANNER OF DEATH**

**The mechanism that gave rise to the physiologic process that led to the death.**

**Natural**

**Homicide**

**Accident**

**Suicide**

**Undetermined**

**Pending**



# **DRUG DELIVERY RESULTING IN DEATH**

## **Chapter 25, Criminal Homicide, Section 2506**

**Offense defined.--A person commits a felony of the first degree if the person intentionally administers, dispenses, delivers, gives, prescribes, sells or distributes any controlled substance or counterfeit controlled substance in violation of section 13(a)(14) or (30) of the act of April 14, 1972 (P.L.233, No.64), known as The Controlled Substance, Drug, Device and Cosmetic Act, and another person dies as a result of using the substance.**



## **CONCERNS WITH STATUTE**

**Legislature is to be commended for its foresight in passing the previous statute. Unfortunately, as we are discovering, the current statute has had limited use.**

**It is very common to find in the toxicology of those who have died from an overdose a combination of drugs, Sometimes the combination may be all illegal substances, sometimes it may be a combination of illegal and prescription drugs. Most toxicology has an average of 3 drugs and it may be as high as 24 drugs.**

**Toxicology is not so precise that it can determine which among all the drugs found is the sole cause of death.**

**Without a recognition of the concept of joint and several liability applied to the drug sellers, many will continue not to be prosecuted.**



## **OTHER CONCERNS**

**Current application of PDMP**

**Hospitals typically throw away admission blood after 3 days**

**Current requests for decedent's name, address, date of birth, age, race, sex, date of death, time of death, place of death, toxicology reports, cause of death, manner of death to be made public.**

**Children & Youth authority – 5 month old baby girl dies in her bassinette from neglect and lack of care 3 days after Mom and Dad die of heroin in the residence.**

**NAS Infants (Neonatal Abstinence Syndrome) are going through withdrawal after birth in the Nurseries.**

**Warm Hand Offs and Hard Hand Offs**

**Statewide accessible database of available beds**



# **TREATMENT**

**You go to the hospital and are diagnosed with a heart attack and you require surgery for a stent. You are sent home and told to contact a specialist and in the meantime take an aspirin once a day.**

**This would never happen, right? But that is what happens with drug overdoses even though parity is said to exist.**

**Insurance reimbursement isn't always available over weekends.**

**Cost for inpatient stays may run \$26,000/month. Treatment may be necessary for a year. Who is going to cover that cost?**

**Effective treatment isn't 15 days or a month. In many cases it is a year with continuing follow-up.**



# **CONCLUSION**

**Every one of these statistics represents a person who could be your friend, your co-worker, your neighbor, a member of your family. The drug epidemic does not discriminate in who it impacts – your wealth, your neighborhood, your age, your profession – all are susceptible to the impacts of this crisis.**

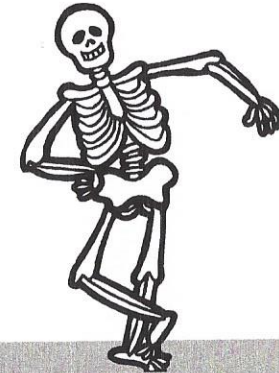
**There are differences to be sure depending on your age group, e.g., most elderly persons die from prescription drug overdoses and not illegal drugs.**

**These differences may require more than one solution.**

**The legislature has devoted considerable time and effort to look at possible remedies. You are to be commended for your efforts to involve many different constituencies in your efforts. The Coroners thank you for the opportunity to participate today.**



**“YESTERDAY IS HISTORY, TOMORROW IS A MYSTERY, AND TODAY IS A GIFT, WHICH IS WHY IT IS CALLED THE PRESENT.” ELEANOR ROOSEVELT**



*Thank You*