

Dr. Timothy Kelly

Medical Director



## % Change in Leading Causes of Injury Death in Indiana (1999-2015)

Suicide: 38.3%

Homicide: -3.8%

Unintentional MV Traffic: -21.7%

Unintentional Falls: 40.9%

Unintentional Poisoning: 771.4%

CDC WISQARS

# Drugs are killing so many people in Ohio that cold-storage trailers are being used as morgues

By Kristine Phillips March 16

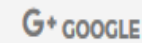


## Most Read

- 1 Unchecked fake news gave rise to an evil empire in Star
- 2 In a day of frantic tweets, senator pleaded with Trump to stop a deportation. It didn't work.
- 3 An infamous and sadistic American serial killer was hanged in 1896. Or was
- 4 'He stole a dream': Alani Morissette's former man sentenced to 6 years for

# 11-year-old Pennsylvania girl revived with Narcan after overdose, police say

POSTED 8:40 AM, MAY 8, 2017, BY [FOX59 WEB](#), UPDATED AT 08:54AM, MAY 8, 2017



PITTSBURGH — Police say an 11-year-old girl had to be revived with the antidote Narcan after a drug overdose in her Pittsburgh home.

Officers were called to the home Wednesday for a suspected overdose. A paramedic who responded tells the [Post-Gazette](#) the girl was using heroin.



# Two Staffers at Pennsylvania Rehab ‘Lodge’ Die of Drug Overdoses

by CORKY SIEMASZKO

Two staffers at an unlicensed Pennsylvania recovery home for drug addicts trying to kick their habits died on the same night from the same thing — overdoses from a lethal mix of heroin and fentanyl.

They were found passed out at the Freedom Ridge Recovery Lodge in leafy West Brandywine Township in their private rooms, which were littered with used needles and baggies of heroin.

advertise

## FROM THE WEB

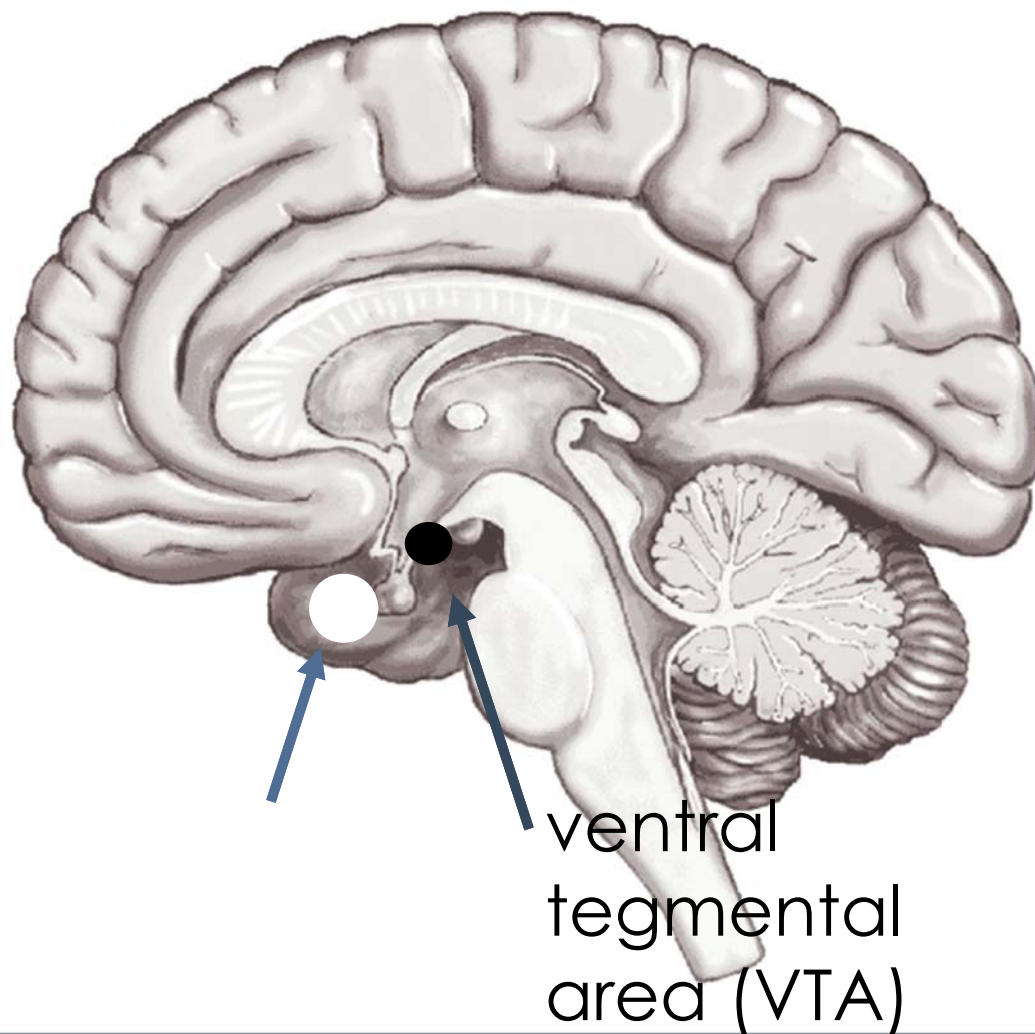


Addiction is a primary chronic disease with genetic psychological and environmental factors contributing to its development and manifestations. The disease is often progressive and fatal. It is characterized by impaired control over alcohol/drugs, preoccupation with alcohol/drugs, use of alcohol/drugs despite adverse consequences, and distortions in thinking, most notably denial.

Each of these symptoms may be continuous or periodic.

(ASAM, 2011)





The VTA– nucleus accumbens pathway is activated by all drugs of dependence, including alcohol.

This pathway is important not only in drug dependence, but also in essential physiological behaviors such as eating, drinking, sleeping and sex.

Common denominator in at least the acute effects of all drugs of abuse is activation of the brain's Mesolimbic dopamine system.




A key neurophysiological lesion of alcoholism and other addictions occurs in the mesolimbic dopaminergic neural pathway in the brain's ventral tegmentum. In normal individuals, this pathway provides pleasurable reinforcement when hunger or sex drives are satisfied. In addicted individuals, neuronal function in this pathway is regulated by different DNA sequences. Thus the neurophysiological basis of the disease of addiction involves a **hijacking** of the mesolimbic pathway such that it drives addictive behaviors along with or instead of adaptive eating and sexual behaviors. For alcoholics and addicts, the resulting cravings and impulses to drink make it difficult to avoid alcohol/drugs.

(Brown, et al,  
2014)



## Causes

- Genetics/Biological
- Psychological
- Early onset use (developmental)
- Environmental Factors



Patients with substance use disorders receive poorer quality care than patients with any other common chronic condition. Most patients do not receive treatment and medications are particularly under-utilized.

## ASAM

“Detox from opioids without pharmacologic support afterwards remains the dominant model of treatment despite decades of experience and evidence to the contrary.”

# The Perfect Storm

- Liberalization of opioid therapy for chronic pain
- Newer, more potent opioid drugs—smorgasbord of choices
- Demand on Primary Care
- Societal attitudes
- Parents and health care providers often naïve
- Healthcare providers were told addiction is rare, typically <1% (actually 30-40%)
- Minimal screening/evaluation for addiction

# Red Flags

- Smoking
- Family history of addiction
- Personal history of substance abuse, active or recent use of illicit drugs, excessive use of alcohol
- Major psychiatric disorder, personality dysfunction
- The patient insists on being on multiple classes of controlled substances
- Allergic or can't tolerate or not interested in non-addictive medications/approaches
- Lots of chaos, never seems to really improve, pain and anxiety always high
- Reports or appearance of intoxication
- Requires high doses, always feels need for higher dose
- Preadolescent sexual abuse
- Poor family support
- Poor reliability, missed appointments, lost or stolen scripts/pills
- Multi-sourcing
- Use of street names for drugs (ex. "eats" pills instead of takes them, "hydros," "percs")
- Lack of objective findings, vague or unsubstantiated diagnosis



## Tools For Recovery

Accountability

Medications (for alcohol, opiates, nicotine)

Mutual Support 12 Step Groups

Counseling

Lifestyle (exercise, eat right, avoid smoking)

Service Work

Spirituality

Positive Social Support/Environment/Family Involvement



## Classes of Substances that benefit from medication as part of the treatment plan:

1.Opioids

2.Tobacco

3.Alcohol



## Treatment

- Medication assisted treatment

- Methadone
- Buprenorphine
- Naltrexone

- “Win-win”

- ↑ recovery rates
- ↑ patient retention

- Supported by...

WHO (World Health Organization)

United Nations

Hazelden

Cleveland Clinic

ASAM

White House Office of Drug Control  
Policy

Surgeon General

National Council for Behavioral  
Health

Treatment and prevention ARE cost effective

Every dollar invested saves \$4-7 in fewer drug related crimes, criminal justice courts and thefts

Multiple controlled studies show that MAT is more effective than detoxification:

- Patient retention in treatment is much better
- More likely to pass a drug test
- Patients are less likely to engage in illicit opioid/alcohol use and criminal activity
- Patients are less likely to transmit Hepatitis C or HIV
- Patients less likely to overdose

## How Did MAT Develop?

- Based on realization of that exploding opioid epidemic
- High Rates of viral transmission from needle sharing
- Need to address discrepancy between number of people with OUD and those receiving treatment
- Recognition of chronic nature of addiction and improved outcomes with MAT vs no MAT
- A desire and need to integrate addiction treatment into mainstream medical care