



PA House of Representatives
Republican Policy Committee

414, Main Capitol Building
Harrisburg, PA 17120
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Rep. Joshua D. Kail
Chairman

PA House Republican Policy Committee Hearing

“A State Lost in Addiction: Pennsylvania’s Path to Recovery”

September 23, 2024, at 9 a.m.

**House Republican Caucus Room,
Room 418, Main Capitol Building
Harrisburg, PA**

- 9:00 a.m. Welcome and Pledge of Allegiance
- 9:10 a.m. **Dr. Michael Lynch**
Attending Emergency Physician and Medical Toxicologist, UPMC
- 9:15 a.m. **Hon. Steven T. O'Neill**
Presiding Judge of Drug Treatment Court, Montgomery County
- 9:20 a.m. **Chris Pawlowski**
Chief Probation, Parole & Pretrial Officer, Chester County
- 9:25 a.m. **Jessica Miraglia, Esq.**
Assistant District Attorney, Luzerne County
- 9:30 a.m. Questions for the Testifiers
- 10:00 a.m. Closing Comments



Testifier Biographies

PA House of Representatives Policy Committee Hearing
"A State Lost in Addiction: Pennsylvania's Path to Recovery"



Dr. Michael Lynch
Attending Emergency Physician and Medical Toxicologist, UPMC

Dr. Lynch is an Associate Professor of Emergency Medicine at the University of Pittsburgh and an Attending Emergency Physician and Medical Toxicologist at UPMC. He also serves as Medical Director, Substance Use Disorders, with UPMC Health Plan.

He received a Bachelor of Arts degree from University of Notre Dame, South Bend, IN. He earned his MD and completed residency in emergency medicine from the University of

Pittsburgh, Pittsburgh, PA. He also completed a fellowship in medical toxicology from the University of Pittsburgh, Pittsburgh, PA.

Hon. Steven T. O'Neill
Presiding Judge of Drug Treatment Court, Montgomery County

Judge O'Neill was appointed to the Bench in April 2002 by then Governor Mark S. Schweiker and was sworn in on July 29, 2002 as a judge for the Montgomery County Court of Common Pleas.

He was elected to a 10 year term in 2004 and retained for another 10 year term in 2014.

Montgomery County is Pennsylvania's 3rd largest County and currently has 23 Judges. He is assigned to the Criminal Division since 2007 and presently serves as its Administrative Judge. Additionally, he serves as the Drug Court Administrative and Presiding Judge.

Prior to his judicial appointment, Judge O'Neill served as Solicitor of Montgomery County, as well as the Zoning Hearing Boards of Lower Merion Township and Upper Merion Township. Judge O'Neill was an Assistant District Attorney for Montgomery County from 1979 to 1984. He was a criminal defense practitioner during his 18 years in private practice. Judge O'Neill received his B.S. in 1975 from Drexel University and his J.D. in 1978 from Villanova University School of Law. He is married and has three grown children.





Chris Pawlowski
Chief Probation, Parole & Pretrial Officer, Chester County

Chris Pawlowski has served as chief probation and parole officer since August 2022. Adult probation, parole, pretrial services (bail), court collections and DUI administration fall under his oversight.

Prior to taking on role of chief probation and parole officer, Pawlowski served as Chester County's deputy chief probation and parole officer for five and a half years.

Pawlowski received a Bachelor of Arts degree in Administration of Justice from Penn State Abington.

Jessica Miraglia, Esq.
Assistant District Attorney, Luzerne County

Miraglia is a past graduate of Luzerne County's Treatment Court. After completing the program, she put herself through Widener University Law School, graduating at the top of her class, and marked 17 years of sobriety in 2023.

She currently serves as Assistant District Attorney for the Division Chief of Specialty Courts, Luzerne County District Attorneys Office.



9/23/2024

Testimony to the PA House GOP Policy Committee re: Emerging Drug Trends

Michael Lynch, MD, FACMT

UPMC Health Plan Quality and Substance Use Disorder Services Senior Medical Director

Director, UPMC Medical Toxicology Telemedicine Bridge Clinic

Associate Professor

Division of Medical Toxicology, Department of Emergency Medicine

University of Pittsburgh School of Medicine

Representative Heffley and distinguished members of the House Republican Policy Committee, thank you for the opportunity to speak with you today.

Introduction and Background

My name is Dr. Michael Lynch. I am board certified in emergency medicine, medical toxicology, and addiction medicine and currently practice in all three fields at the UPMC Mercy Emergency Department, providing toxicology and addiction medicine care at 5 Pittsburgh hospitals in person as well as telemedicine consultation to hospitals throughout the Commonwealth, and finally as the founder and director of the UPMC Toxicology Telemedicine Bridge Clinic which has provided rapid access to evidence-based opioid use disorder treatment to thousands of Pennsylvanians in 61 counties since opening in 2020. Additionally, I am Senior Medical Director for Quality and Substance Use Services at UPMC Health Plan. I am also a lifelong Pennsylvanian, a husband, a father, and a neighbor. My experiences in all these roles informs my perspective and testimony.

Overview of Trends in Overdose Deaths

The drug overdose epidemic has evolved significantly over the last two decades. This progression is frequently described at a high level as following “4 waves” of overdose deaths: 1) prescription opioids, 2) heroin, 3) fentanyl and its analogues, and 4) stimulants in isolation and in conjunction with fentanyl, particularly methamphetamine. (Ciccarone, 2021) Several important trends have been noted in Pennsylvania since 2017 when we saw the highest number of overdose deaths in the history of the Commonwealth at 5,425. Opioids, and particularly illicit fentanyl, continue to drive overdose deaths with ~83% of overdose deaths involving opioids and more than 3 of every 4 related to fentanyl. (PA

ODSMP) We have also seen an ongoing trend of increasing involvement of stimulants. The percentage of overdose deaths involving both opioids and stimulants (primarily cocaine and methamphetamine) has increased by nearly 50% since 2017 and accounted for nearly 50% of all overdose deaths in Pennsylvania in 2023. Overdose deaths associated with only stimulants and no opioids have more than doubled and represented more than 10% of all overdose deaths. (PA ODSMP) Overdose deaths have impacted all communities across Pennsylvania. Counties with the highest rates of overdose deaths represent rural, suburban, and urban communities. Rural Montour County had the highest overdose death rate in 2023 followed by urban Philadelphia County. (PA ODSMP) Since 2017, there has been a significant divergence in overdose death rates by race. In 2017, the rates among white and Black Pennsylvanians were essentially the same, but is now double among Black residents. (PA ODSMP)

Xylazine Prevalence

In addition to the increase in stimulant use in conjunction with transition from heroin to fentanyl, xylazine, sometimes referred to as “Tranq”, has rapidly grown in prevalence in Pennsylvania and throughout the country, adulterating a significant portion of the fentanyl drug supply. Overdose deaths involving xylazine rose 276% nationwide from 2019 to 2022 and continue to rise. (Kariisa et al, 2023) In 2017, xylazine was not detected in any Pennsylvania overdose deaths. Beginning in 2018, clinical reports of xylazine effects were reported in southeastern PA and it was detected in 51 overdose deaths in 3 counties, Philadelphia and surrounding communities. Xylazine has been identified sporadically in illicit opioids for decades with the most robust experience and reporting previously occurring in Puerto Rico. (Reyes et al, 2012) Since 2018, xylazine has been increasingly encountered clinically and identified in postmortem analyses throughout Pennsylvania generally traveling westward and northward over time such that in 2023, xylazine was identified in nearly a quarter of all overdose deaths in at least 47 counties representing all regions of the Commonwealth. It is difficult to know the exact prevalence of xylazine in the illicit drug supply given testing limitations. However, it has been reported that at least 90% of the illicit fentanyl supply in Philadelphia is adulterated by xylazine. (Philadelphia Department of Public Health, 2022) It is likely present in approximately 40-50% of the illicit drug supply in the Pittsburgh area based upon personal experience, communication with other healthcare providers, and stakeholders. However, that may represent an underestimate.

Xylazine Effects and Clinical Impacts on Overdose

Xylazine is a veterinary anesthetic that acts on receptors (alpha-2 adrenergic receptors) in the body similar to available prescription human medications such as clonidine,

guanfacine, tizanidine, and dexmedetomidine. The primary effects of substances that act on these receptors is to cause sedation as well as lower the heart rate and blood pressure. (Lowry, 2014; Kacinko, 2022) Medications in this class that are approved for human use can be prescribed to cause sedation, control blood pressure, alleviate opioid withdrawal symptoms, treat muscle spasm, and as an anesthetic. The presence of xylazine in illicit fentanyl has been purported to give it “legs”, i.e. to prolong the sedating effects beyond the peak and decline of the fentanyl effect to reduce the rapid development of withdrawal symptoms following its use. In isolation, xylazine may have minor impact on breathing but does not result in the degree of respiratory depression seen with opioids. It is difficult to know whether its presence increases the risk of opioid overdose. While synergistic harmful effects of combining fentanyl and xylazine would be anticipated, data are conflicting as to whether the presence of xylazine makes it more likely that a person would die from an overdose. (Kacinko, 2022; Love, 2023) The increase in prevalence of xylazine would be expected to result in increased presence in postmortem analyses, but does not necessarily indicate a higher mortality. Since xylazine does not act directly on the opioid receptor, its effects are not reversed with naloxone. However, since xylazine is nearly always present in combination with fentanyl, naloxone administration remains recommended in order to reverse the fentanyl portion of the overdose. The effect of naloxone may be less evident as individuals may resume breathing but remain sedated due to the persistent xylazine effects. The presence of xylazine has not resulted in the need for higher doses of naloxone though education for providers and bystanders has emphasized that normalization of breathing without necessarily arousal of an overdose victim is the desired response and does not require additional doses.

Xylazine Withdrawal

In addition to acute toxicity and the impact on overdose, xylazine has had demonstrable impacts on individual and population health in Pennsylvania. Regular use of xylazine is associated with tolerance and dependence which can lead to withdrawal upon discontinuation. Xylazine withdrawal can complicate opioid withdrawal and does not respond to medications typically used to treat opioid withdrawal, e.g. buprenorphine or methadone. Additional medications are frequently used and the added symptoms can contribute to patients disengaging from treatment. Evidence to guide effective management of xylazine withdrawal in conjunction with management of opioid use disorder continues to emerge. (Ehrman-Dupre et al, 2022; Gupta et al, 2023)

Xylazine Wounds

One of the most impactful clinical impacts of xylazine has been associated wound development. Wounds have been reported in association with xylazine in Puerto Rico and

the continental U.S. (Reyes, 2012; Ehrman-Dupre et al, 2022) The wounds typically develop on the arms and legs. They are necrotic, meaning that the skin and tissue dies. They are not infectious, but can become infected and lead to bacterial infections of the tissue, bones, bloodstream, spine, and heart valves. (Malayala et al, 2022; Wei et al, 2023) These develop in areas where drugs are injected most commonly, but also occur at sites remote from injection and have even been reported by people who report using drugs through means other than injection. (Ehrman-Dupre et al, 2022) Wounds require careful and long-term care to support healing and prevent complications such as severe infections, skin grafts, and amputations. The impact on healthcare outcomes, utilization, and costs is not well quantified, but care related to these wounds has significantly increased in the ED and hospitals where I work over the last several years in addition to outpatient wound care services. Ensuring access to wound care management and supplies is critical to minimizing significant medical complications, deformity, and high intensity hospital-based care.

Medetomidine

Recently, substance surveillance programs have identified a related substance, medetomidine, adulterating the fentanyl drug supply. (Palamar et al, 2024) Medetomidine includes the enantiomer, dexmedetomidine, which is used clinically in humans for sedation in critically ill patients and anesthesia. The pharmacology is similar to xylazine including sedation with potential for decreased heart rate and blood pressure. It would be expected to have similar properties as xylazine leading to dependence and withdrawal. It is less clear whether consistent use will result in wounds as we have seen associated with xylazine use. Use of the pharmaceutical, dexmedetomidine, has not been associated with wound development. But, the mechanism for wound development from xylazine use is unknown. Dexmedetomidine is not used in the same manner or consistency as illicitly used drugs so clinical experience may not predict the effects of illicit use. Work is ongoing to monitor for potential differences in impact on acute overdose, withdrawal, and wound development from medetomidine vs. xylazine, but it is too early to draw conclusions.

Xylazine Testing and Wound Care

Surveillance of the illicit drug supply remains critical to understanding effects of xylazine and similar adulterants. It is important to note that currently there are no FDA-approved drug tests for xylazine or associated substances. Some facilities have the capability to do more costly, advanced testing for identification. However, people do have the ability to test substances for the presence of xylazine using test strips. Such testing supplies are available to the public through the Pennsylvania Overdose Prevention Program, a joint initiative of the PA Commission on Crime and Delinquency and the PA Department of Drug

and Alcohol Programs. (PA Overdose Prevention Program) Regional distribution hubs and some clinical spaces are able to provide these supplies to patients in order to reduce exposure. Additionally, many county agencies, harm reduction organizations, and treatment providers have developed wound care programs including supplies and instructions for individuals. Supporting these efforts at harm prevention and mitigation should be a priority.

Fentanyl Trends-Pills and Mixtures

Fentanyl and its analogues (subsequently referred to as “fentanyl” inclusive of analogues) have consistently been a part of the illicit drug supply in Pennsylvania for approximately a decade. Prior to that, fentanyl adulteration of heroin occurred sporadically and typically with devastating effects. Since 2014, fentanyl adulteration of heroin has progressed from sparse and intermittent to essentially replacing heroin as the only available illicit powdered opioid for injecting, snorting, or smoking. Variations in purity and potency have contributed to unpredictable effects and toxicity. More recently, fentanyl has become more prevalent in other forms of illicit drugs including pills pressed to look like prescription opioids and non-opioid pharmaceuticals as well as non-opioid substances including cocaine, methamphetamine. In 2023, the number of pills seized by law enforcement that included fentanyl jumped 10-fold compared to 2021, and more than 2,000x the number seized in 2017. (Palamar et al, 2024) Clinically, it is common to encounter patients who have suffered a fentanyl overdose who had purposely taken what they thought were prescription opioids specifically to avoid fentanyl. Still others report that they took what they thought was a prescription benzodiazepine and had no intention or history of using opioids, illicit or otherwise. Clearly, this poses a significant threat to people who are aware of and fearful of the dangerous effects of fentanyl and attempting to avoid exposure, particularly if they have no tolerance to any opioids. Fentanyl has also been identified with increasing frequency in cocaine and methamphetamine products. According to DEA, fentanyl was found in 41% of seized cocaine and 17% of seized methamphetamine products. (DEA, 2024) Once again, the unwitting use of any opioid, particularly fentanyl, can have devastating effects.

Fentanyl-Naloxone and Test Kits

The growing presence of fentanyl in our drug supply, particularly in pills and non-opioid illicit drugs, represents an ongoing danger to people who use drugs. The potential to overdose on fentanyl regardless of the substance being used highlights the importance of ensuring access to naloxone for people who use any type of drug regardless of intention to use opioids. Additionally, since a person suffering opioid toxicity cannot administer naloxone to themselves, increased availability in the community, particularly among

people more likely to encounter an individual who uses drugs, is critical to ensuring that someone can respond in a timely manner if necessary. Despite some reports to the contrary, traditional doses of naloxone continue to be effective and consensus opinion among emergency medicine, toxicology and addiction specialists is that higher doses of naloxone or longer-acting formulations such as nalmefene do not appear necessary and may be associated with unintended adverse effects related to worsening and prolonged withdrawal symptoms. (Payne et al, 2024; Yugar et al, 2023; Farkas et al, 2021) Fentanyl testing supplies are also an important tool to allow individuals to reduce the risk of inadvertent exposure to fentanyl. While nearly all illicit powdered opioid is fentanyl and most people are aware of that, its presence in other substances is much less predictable and testing supplies have been shown to alter substance use behaviors to reduce the risk of overdose. (Tilhou et al, 2023) As with xylazine testing supplies, the PA Overdose Prevention Program distributes fentanyl testing supplies.

2-Benzylbenzimidazoles, aka “Nitazenes”

Another emerging category of opioids are 2-benzylbenzimidazoles, commonly referred to as “nitazenes”. (Pergolizzi et al, 2023) Examples include isotonitazene and metonitazene though there are numerous related compounds. These agents have been identified in Pennsylvania. (Philadelphia Department of Health, 2024) Potency of these compounds can vary, but are typically reported to be more potent than fentanyl though not as potent as some fentanyl analogues. (Pergolizzi et al, 2023) Additionally, the opioid effect appears to last longer than what is observed following fentanyl or heroin overdoses. Current clinical testing and drug checking supplies are not able to detect “nitazenes” outside of more advanced laboratory techniques so the true prevalence in the drug supply is not well understood. These compounds were originally developed in the 1950’s as a potential pain medication, but were never approved for use. The DEA has introduced scheduling of these substances, but given the chemical structural heterogeneity, much like with other drug classes such as cannabinoids, predicting specific compounds is challenging. (Pergolizzi et al, 2023) Given challenges with identification in medical settings, data regarding its clinical impact are limited. Available data suggest that patients respond to typical doses of naloxone though have a higher propensity to be given delayed additional doses, presumably related to the longer duration of action. (Amaducci et al, 2023) At this point, limited data do not support significant changes in approach to naloxone administration or changes to treatment protocols. However, the medical community will continue to closely monitor for potential indicators to change treatment recommendations.

Reduction in Overdose Deaths-Continued Efforts

Despite these alarming trends in substance use and availability, it is important to note the significant efforts and investment that have been made to improve outcomes associated with substance use. Last week, the CDC updated overdose death numbers throughout the country and demonstrated a reduction of ~10% for the 12-month period ending in April, 2024, compared to the 12-month period ending in April, 2023. According to CDC, Pennsylvania overdose deaths declined 18% in the same time period. (Ahmad et al, 2024) While those declines are encouraging, more than 100,000 Americans and more than 4,000 Pennsylvanians died during that time which remains absolutely tragic in addition to the non-fatal harm and heartbreak experienced by so many that is not reflected in those counts. The reasons for this improvement are likely multi-factorial and a result of the work of many. Harm reduction interventions such as drug checking supplies legalized in Pennsylvania in 2022 have likely contributed. Continued efforts to make naloxone available throughout the Commonwealth have certainly made an impact and need to continue. Low-barrier access to evidence-based treatment including Centers of Excellence, telehealth programs such as the UPMC Telemedicine Bridge Clinic, and other innovations such as mobile clinics have demonstrated improvement in outcomes including treatment engagement and retention that would be expected to reduce mortality in addition to costs. (Alaigh et al, 2020; Lynch et al, 2022; Lynch et al, 2024) Ensuring ongoing support and expansion of these proven programs is imperative in the continued mission to reduce overdose deaths and harms associated with substance use. Additionally, programs such as syringe service programs offer an important venue for both lowering the risk of overdose deaths, but also reducing the incidence and costs associated with transmissible infectious diseases such as viral hepatitis and HIV while also increasing the likelihood that individuals will engage in treatment. Supporting syringe service programs has been a policy pillar of the Department of Health and Human Services under both the Trump and Biden administrations due to the extensive evidence supporting their positive effect on health and social outcomes. (Giroir, 2019)

Vulnerable Populations

Important considerations in continuing to reduce overdose deaths include ensuring rapid and seamless access for those living in underserved communities and for individuals leaving jail. People who live in rural areas frequently encounter barriers to accessing care including less provider availability, transportation challenges, and stigma. (Stopka et al, 2024) Access can also be limited in suburban and urban communities as well though the challenges may differ. The racial disparity in overdose deaths in Pennsylvania which has developed since 2017 also indicates variable access to treatment and support services. (Takemoto et al, 2024; Barnet et al, 2023) Continued emphasis on programmatic interventions that address community-specific barriers including mobile treatment,

recovery community organization, and telehealth can alleviate some of these challenges. (Jones et al, 2022) The risk of overdose death is 10x higher for people in the first two weeks after leaving jail and 4x higher throughout the lives of people who have been incarcerated compared to people with opioid use disorder who have not been incarcerated. (Hartung et al, 2023; Gan et al, 2021) State and county prisons have been implementing programs in Pennsylvania and throughout the country to provide evidence-based medication treatment to prisoners. Ongoing efforts to expand these programs and ensure smooth transitions to community-based care upon release are important pieces of the comprehensive approach to combatting the overdose death epidemic.

Continuous Evolution of Traditional Drug Classes

We continue to monitor emerging trends as common substance classes evolve. In general, non-medical substance use has historically involved substances from one or more categories including opioids, stimulants, cannabinoids, sedative-hypnotics, and dissociative agents (e.g. ketamine). (Tamama et al, 2020) Within each of these categories, different specific chemical formulations are developed or re-discovered for distribution as a way to avoid detection and/or law enforcement. Cannabinoids and stimulants, in particular, have seen significant diversity of chemical substances made available through in person and virtual outlets. The dark web is a significant source of illicit substances that can be easily shipped in individual or bulk doses. However, even a Google search can direct you to sources of substances that are unregulated and advertised as “Not for human consumption” or “Research chemicals.” Continued and constant vigilance is necessary to understand and assess the impacts of these substances and various adulterants. At the same time, tobacco and alcohol continue to account for more illness and death each year than any other substance. Continued efforts to prevent use and encourage treatment of use disorders related to those substances is of paramount importance.

Conclusion

I appreciate the committee’s focus and passion to address addiction and its harms in Pennsylvania and stand ready to join you as we continue to navigate a path to recovery. Thank you for the committee’s time and attention to these issues.

Testimony submitted by:

Michael Lynch, MD

A handwritten signature in cursive script that reads "Michael J. Lynch". The signature is written in black ink and is positioned below the printed name.

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