

The Delaware Opioid Epidemic



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In 2014, only eight states had an age-adjusted death rate from drug poisoning higher than Delaware (NCHS, 2016). In Delaware, deaths from drug poisoning first surpassed deaths from motor vehicle injuries in 2009 (Delaware Division of Public Health, 2016).

Figure 1 demonstrates the dramatic rise in drug overdose mortality among Delaware residents, from 1999 to 2015. The actual number of deaths increased from 50 to 228 during this period. Prescription drugs are the primary driver of the increase, and opioids are the primary type of prescription drug involved. Preliminary data from the Division of Forensic Sciences suggest that more than 300 Delawareans died in the year 2016 from drug overdose.

The impact of the epidemic is also evident among Delaware's youngest citizens. In 2003, 38 babies were cared for in Delaware hospitals because of neonatal abstinence syndrome – drug withdrawal in the newborn. This number climbed to 215 in 2013. Not surprisingly, the cost to care for these babies has also climbed from \$392,000 in 1999 to almost \$9,600,000 in 2013. A separate analysis looking at hospital discharge data from the period of 2010 – 2013 suggests that Delaware's NAS rate is about three times higher than the national rate. During the same period, there was a continued annual increase in the number of NAS cases and the median charges billed for a NAS newborn were five times higher than the charges for a non-NAS newborn. (Delaware Division of Public Health, 2016).

THE PRESCRIPTION CONNECTION

Given the prevalence of chronic pain, it is not surprising that opioid analgesics are the most commonly prescribed class of medications in the United States (CDC, 2014). Since 1999, the amount of prescription opioids sold in the U.S. nearly quadrupled (CDC, 2016). In 2015, 36.4 percent of Americans over the age of 12 years used painkillers (Hughes, et al., 2016). Not only are opioid analgesics widely misused but the major source of diverted opioids is physician prescriptions (Shei, Rice and Kirson, 2015). For this reason, there is increasing attention on prescribing habits. In 2012, Delaware healthcare providers prescribed more high-dose opioids than healthcare providers in any other state. Delaware was second in the nation for long acting/extended release opioid prescriptions (Paulozzi, Mack and Hockenberry, 2012).

The good news is that the percentage of patients prescribed high-dose opioids in Delaware has been decreasing (Figure 2). Still, the number of prescriptions per Delaware resident has not changed (Figure 3) and nearly 11 % of patients who are prescribed opioids are receiving a benzodiazepine at the same time (Figure 4)—a potentially dangerous combination.

A COMPREHENSIVE SOLUTION

Figure 5 is from the Association of State and Territorial Health Officials Public Health (*Public Health Approaches...*, n.d.). It is a useful framework to conceptualize the comprehensive approach necessary to address the opioid problem. Public health practitioners will recognize the primary, secondary and tertiary prevention concept. At the top of the pyramid is preventing adverse outcomes from addiction or harm reduction (tertiary prevention). The administration of naloxone is a good example. Naloxone is used in opioid overdoses to counteract life-threatening depression of the central nervous system and respiratory system, allowing an overdose victim to breathe normally, receive additional emergency care and provides an opportunity to engage or re-engage that individual in treatment.

The middle of the pyramid is the diagnosis and treatment of addiction (secondary prevention). Medication-Assisted Treatment (MAT) is an example which involves the use of medications in conjunction with counseling and behavioral therapies to treat substance use disorders and prevent overdose. MAT is not without controversy. Proponents say that it leads to a smoother transition to a drug-free lifestyle. This claim is strongly supported by empirical evidence. Opponents claim that MAT is simply

replacing one addiction with another, and that the medical profession is in effect endorsing long-term addiction (Center for Substance Abuse Treatment, 2005).

The bottom of the pyramid is primary prevention – the prevention of a disease or injury before it occurs. Note the variety of potential interventions that are listed.

The system improvements and collaborative work necessary to put into place these prevention measures, let alone to have them function seamlessly, is a monumental task that will take leadership from government, healthcare providers, community agencies, law enforcement, schools and many other entities.

While there is much more to do, important steps have been taken in Delaware. Prominent among these are the establishment in 2012 of the Prescription Drug Action Committee (PDAC). Led by the Delaware Division of Public Health and the Medical Society of Delaware, PDAC's mission has been to coordinate public, private and community efforts to address the opiate crisis we are facing. PDAC has done its work through four subcommittees – Public Education, Provider Education, Access to Substance Use Disorder Treatment, and Control and Surveillance. You can access the PDAC report from the Delaware Division of Public Health website (*Prescription Drug Action Committee, n.d.*). The progress made by PDAC and the importance of the mission led to the introduction of legislation to codify the committee as the Addiction Action Committee. The legislation, passed on June 30 and signed by Governor Carney on August 16th, 2017, provides the committee with a broader mission of establishing a comprehensive, coordinated strategy to address addiction in Delaware.

Under the leadership of PDAC and multiple partners, some significant accomplishments are listed below, organized by the framework presented in Figure 5. This is not intended to be an inclusive list.

TERTIARY PREVENTION (PREVENT LIFE-THREATENING ADVERSE OUTCOMES)

♦ **Naloxone** – With a revision of Delaware law (16 Del.C. § 3001G), naloxone can now be administered by peace officers, emergency responders, school nurses and community members. The number of doses administered increased approximately 12 percent from 2014 (1,236 doses) to 2015 (1,389 doses). In both years, roughly 50 percent of the patients experienced an improved outcome after receiving naloxone (DEA Intelligence Report, 2016). The administration of naloxone continues to increase in frequency with 1,535

doses administered in 2016 and 866 doses administered in the first six months of 2017. In July 2017, a further legislative revision was made to provide pharmacists who dispense naloxone the same protections afforded doctors and first responders who prescribe and administer the drug. The removal of this barrier to access will further contribute to the increased availability of naloxone in the community.

- ♦ **Good Samaritan Law** – Except for the most serious felonies, this law, passed in 2013, provides that someone who seeks medical attention for an individual in the midst of an overdose or life threatening emergency, including for him or herself, will not be arrested or prosecuted (*16 Del. C. § 4769*).
- ♦ The Delaware law allowing for a sterile needle and syringe exchange program (*16 Del.C. § 7990*) was originally limited to the City of Wilmington. The law was revised to remove this geographic restriction so that all Delaware residents could have access to this important tool in combatting drug addiction and preventing disease transmission. Syringe exchange services are now offered on a limited basis in Kent and Sussex counties.

SECONDARY PREVENTION (DIAGNOSE AND TREAT ADDICTIONS AND SUBSTANCE USE DISORDERS)

- ♦ **www.Helpsherede.org** – This website, maintained by the Department of Health and Social Services is a one place stop for medical providers, individuals looking for treatment, and those concerned about their friends and loved ones. The site was updated in the spring of 2017 to include personal stories to better engage with the audience, information in multiple languages to make it more accessible and improvements to make the site more mobile friendly. On the provider side, there are now more tools available to assist prescribers in helping their patients. (*Help is Here, n.d.*)
- ♦ **Hero Help and Angel programs** – Hero Help (New Castle County Police) and the Angel program (Dover Police) are programs offered by the respective police departments to connect individuals seeking help with drug treatment resources without fear of repercussions. (*Dover Police Angel Program, n.d., Hero Help, 2016*).
- ♦ **Drug Court** - The Treatment Access Center (TASC) is the primary liaison between the Division of Substance Abuse and Mental Health and the criminal justice system. TASC provides case management services to offenders as they move through both the criminal justice and treatment systems. Assessments are conducted and

treatment recommendations are provided to the court and other criminal justice officials for use in disposition. Once a case is engaged, TASC ensures that treatment placement occurs in a timely basis (*What is TASC?, n.d.*)

- ♦ **Delaware treatment system** – The Delaware Division of Substance Abuse and Mental Health's response to opiate addiction has been to increase treatment capacity while creating a continuum of care that includes residential treatment options as well as less intensive treatment options such as traditional outpatient care. MAT is a treatment option for individuals seeking to address addiction issues with the assistance of medication and counseling. Opioid treatment programs offer medication in the form of Methadone, Suboxone or Subutex along with treatment sessions in group and individual counseling. Detoxification programs are also offered on an inpatient or outpatient basis. The treatment system in Delaware operates as a continuum in which clients may move from more intensive levels of treatment to less intensive, or from less intensive to more intensive. A comprehensive assessment determines the level of support. Living in a safe environment free from substances is an important aspect of treatment. For this reason, Delaware provides Sober Living residences in which individuals in early recovery can find a safe place to live while receiving counseling, case management, medical and psychiatric support.

PRIMARY PREVENTION (REDUCE THE NEED TO SELF-MEDICATE, CONTROL ACCESS TO ADDICTIVE SUBSTANCES, AND PROMOTE PROTECTIVE FACTORS)

- ♦ **Prescription Drug Monitoring Program (PMP)** – The Delaware Prescription Monitoring Act (*16 Del. C. § 4798*) authorizes the Delaware Division of Professional Regulation to establish, maintain and monitor the PMP in order to reduce misuse of controlled substances in Delaware and to promote improved professional practice and patient care. The PMP gives prescribers information about the opioid using history of a patient, and has great potential as a quality assurance tool. The PMP collects dispensed controlled substance prescription data from pharmacies every 24 hours and provides practitioners and authorized support staff with access to patient profiles and drug dispensing records for clinical assessment. The information can also be accessed by law enforcement for investigative purposes. PMP data is also an important public health surveillance tool. In the Fall of 2017, Delaware's PMP is expected to migrate to the AwareRx/NarxCare® system which will provide substantial improvements to functionality, give practices the ability to integrate with EMR's, if they choose, and

- make other improvements to facilitate better prescribing practices and oversight.
- ✦ PMP activities will be enhanced by a bill signed into law in May 2017. The bill, HB-91, established the PMP Advisory Committee to bring together stakeholders working to improve oversight of prescribing practices in Delaware. The Committee will focus on developing criteria to be used to identify circumstances that warrant referral to professional licensing or law enforcement authorities. Other Committee activities will include recommendations and input to improve the ability of the PMP to connect with other state PMP's and to increase use of the PMP among prescribers and dispensers.
 - ✦ In 2016, Delaware created an Overdose Fatality Review Commission to examine deaths from opioid overdoses, including prescription opioids, fentanyl and heroin, and to make recommendations to prevent future overdoses. The law was revised in 2017 to allow the Commission limited, specific access to the PMP and obtain other data and information pertinent to its mission (*16 Del.C. Chapter 47*).
 - ✦ **Provider education** – All controlled substance prescribers must take one-hour of continuing education on Delaware-specific prescription drug abuse and pain management topics, including the PMP (*Uniform Controlled Substances Act Regulations, n.d.*), within the first year of registration and two hours of CE's every two years in the areas of controlled substance prescribing practices, treatment of chronic pain, or other topics related to prescribing controlled substances as long as they hold registration.
 - ✦ **Delaware's Board of Medical Licensure and Discipline Regulation 18** – This regulation defines specific requirements applicable to pain control, particularly related to the use of controlled substances, to alleviate licensed practitioners' uncertainty, to encourage better pain management, and to minimize practices that deviate from the appropriate standard of care and lead to abuse and diversion (1700 Board of Medical Licensure and Discipline, n.d.) In addition, the Uniform Controlled Substances Act Regulations were updated in April 2017 to refine guidance for prescribing for pain management in acute care instances and chronic treatment. Key elements around prescribing opioids for chronic, long-term pain treatment include: an initial query of the PMP for prescription history and at least every 6 months; administration of fluid drug screens at least every 6 months; and obtaining a signed informed consent and treatment agreement.
 - ✦ **Access to long acting reversible contraceptives (LARCs)** – Upstream USA, in partnership with the Delaware Division of Public Health, initiated a new program called *Delaware CAN* (Contraceptive Access Now), a public-private partnership designed to reduce unintended pregnancy in the state of Delaware (*Small State. Big Idea., n.d.*). Since 80-90% of babies born to mothers with a substance use disorder are unintended, increasing access to effective contraception by women dealing with addiction should also reduce the incidence of neonatal abstinence syndrome.
 - ✦ **Drug take back** – There are 14 police departments throughout Delaware where individuals can anonymously discard their expired and unused medicines (*Stop Flushing Your Medications, n.d.*). The Division of Public Health is working with pharmacies to enable them to take back drugs on-site. Now, Walgreen's has established drug take back kiosks at six of the company's locations in Delaware. Related, Verde Technologies recently partnered with PDAC and the Delaware Pharmacists Society to launch the first Deterra Drug Deactivation System statewide pilot program in the country. Verde worked with six participating Delaware pharmacies to provide free Deterra Drug Deactivation System packages to residents so that they may safely and conveniently deactivate and dispose of unused highly addictive and sought after prescription medications at home (*Division of public health coordinates..., 2015*).
 - ✦ **Hospice drug disposal** – Delaware regulations now require hospice facilities to have procedures to safely dispose of unused prescription medications following the death of an in-home hospice patient (*4468 Delivery of Hospice Services, n.d.*).
 - ✦ **Secured Script Program** – Delaware implemented the Secured Script Program in March 2012 to combat prescription fraud. This program requires prescribers of controlled and non-controlled substances to use tamper resistant prescription forms, which are supplied by the Division of Professional Regulation approved vendors (*DEA Intelligence Report, 2016*).
 - ✦ **School education** – Red Clay Consolidated School District partnered with the Delaware Division of Public Health to offer an education program to prevent and identify prescription drug abuse among teenagers and pre-teens. The program adapted Smart Moves/Smart Choices, a research-based program developed by the National Association of School Nurses and Janssen

Pharmaceuticals for middle and high school students (*Delaware Public Health and Red Clay...*, 2013). DPH is working with the Department of Education to better assess the needs of health teachers and provide support for implementation of evidence-based health education programs in Delaware schools. DPH is working to conduct three pilot projects to implement the Botvin Life Skills training in one school district in each Delaware county.

- ♦ **Drug Diversion Investigations** – Prescription drugs are diverted in various ways including prescriptions and prescription pads being sold to third parties; prescriptions being filled and the pills sold to third parties; “doctor shopping;” and residential theft. The Delaware State Police maintains a Drug Diversion Unit consisting of 5 Agents and 1 Trooper (*Delaware Drug Diversion Unit, n.d.*) to investigate drug diversion.
- ♦ **HIDTA** – In 2015, the White House Office of Drug Control Policy announced 5 High-Intensity Drug Trafficking Areas. One of these areas includes Philadelphia, Camden and New Castle County. The objectives are to reduce opioid-related overdose deaths, dismantle primary heroin distribution networks, and educate families and young people about the risks of opioid abuse and available treatment resources (*Heroin Response Strategy High Intensity Drug Trafficking Areas, n.d.*).

THERE IS MUCH MORE TO DO

The accomplishments to date pale in comparison to the work ahead if real progress is to be made. Some of the most important priorities include the following.

- ♦ **Support for healthcare providers** – We need to re-double efforts to help providers change their practice around safe opiate prescribing so as to be consistent with accepted guidelines and changing state regulations. This includes arming them with information, providing technical assistance for quality improvement, and facilitating technology that makes it easier for them to check the PMP and tap into prescription information across state lines. Providers also need support to utilize alternative (non-opiate) approaches to pain management, including insurance reforms that reimburse them accordingly. Finally, availability and awareness of and engagement with coordinated, evidence-based, person-centered and quality substance use disorder treatment services must continue to be a priority.

- ♦ **Public education** – There is an urgent need to expand education to children, youth and their families around addiction and approaches to prevent it. Strong support for our schools and teachers to implement current, related regulations is necessary. Expansion of the implementation of Botvin Life Skills, based on the outcome of the pilot projects, is part of the statewide vision for public school health education. Also needed is broad education of the public: approaches to prevent opiate misuse and addiction; alternative approaches to pain management; identification of substance use disorders; means to reduce the stigma associated with addiction; and how to navigate to system to receive quality treatment services.
- ♦ **Connecting individuals to treatment** – Providers that are the most likely to encounter those at the highest risk of adverse outcomes from opioid addiction, especially providers who work with pregnant women, EMS providers and hospitals that treat those who have overdosed and those in the criminal justice system are uniquely positioned to help individuals connect with the support they need. While there are some programs that already make that connection, they need to be expanded and fully integrated into patient care.
- ♦ **Correctional programs** – Given the number of drug users admitted to and leaving Delaware correction facilities, support is needed for efforts now under way to redesign programs that emphasize effective treatment while incarcerated and coordinate a warm hand-off when inmates leave prison.
- ♦ **Surveillance** – Given the complexity of this problem, understanding it at a level of nuance useful to policy makers and program managers is a challenge. Existing efforts to coordinate the collection of data and its analysis are a start.

CONCLUSION

The historical approach to substance misuse has been narrowly defined, largely limited to government control, criminal justice and more recently treatment. We are now in what Thomas Kuhn called model crisis (Kuhn, 1962). Our understanding has changed due to the accumulation of experience. The “old” model is broken. It can no longer serve as a reliable guide to problem solving. Attempts to patch the model will fail.

The new paradigm is the public health approach. The good news is that we have begun to shift - but we have a long way to go. Unprecedented collaboration and system re-design will be necessary if we are to be successful.

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Figure 1. Annual Age-Adjusted Drug Overdose Mortality Rates by Type of Drug, Delaware 1999-2015

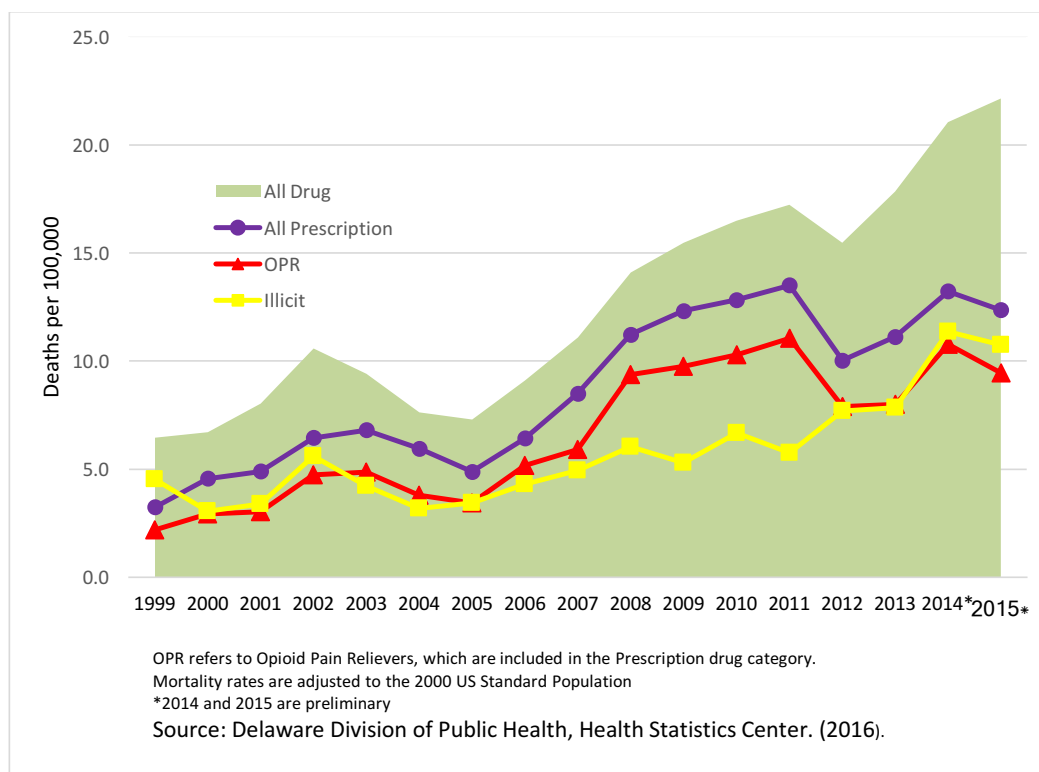


Figure 2. Quarterly percentage of patients receiving > 90 Morphine Milligram Equivalents daily, Delaware, January 2012 – December 2016

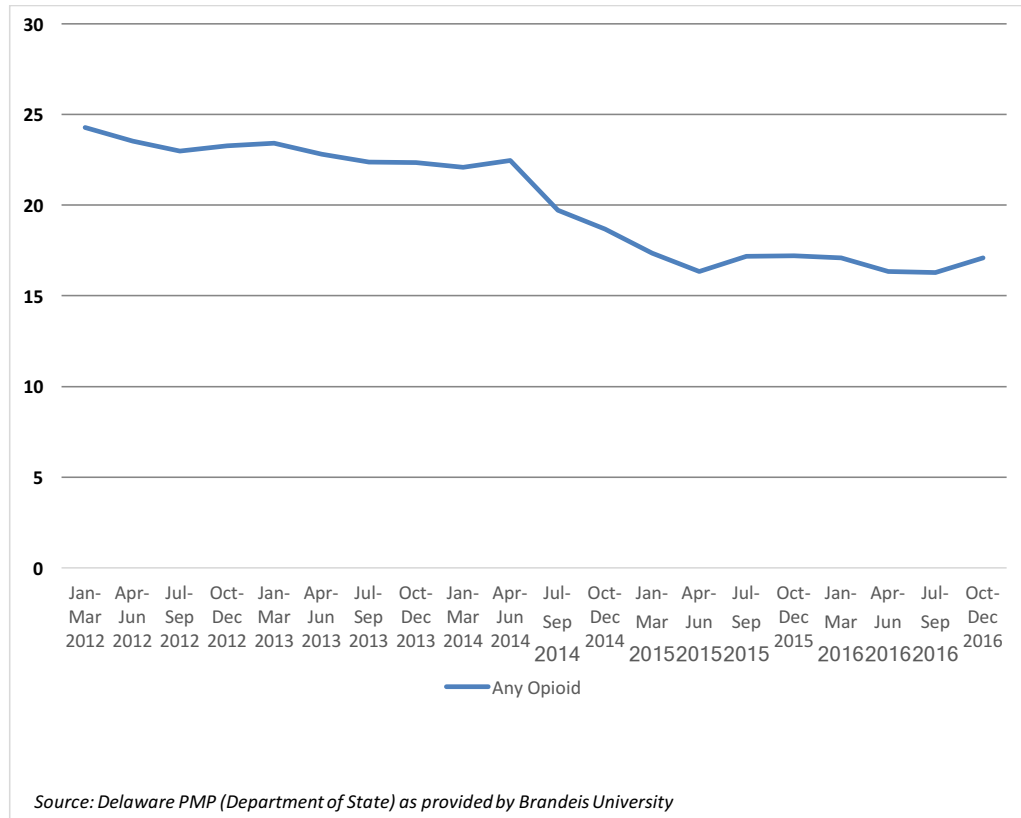


Figure 3. Opioid and benzodiazepine prescription rate per 1,000 residents, Delaware, January 2012 – December 2016.

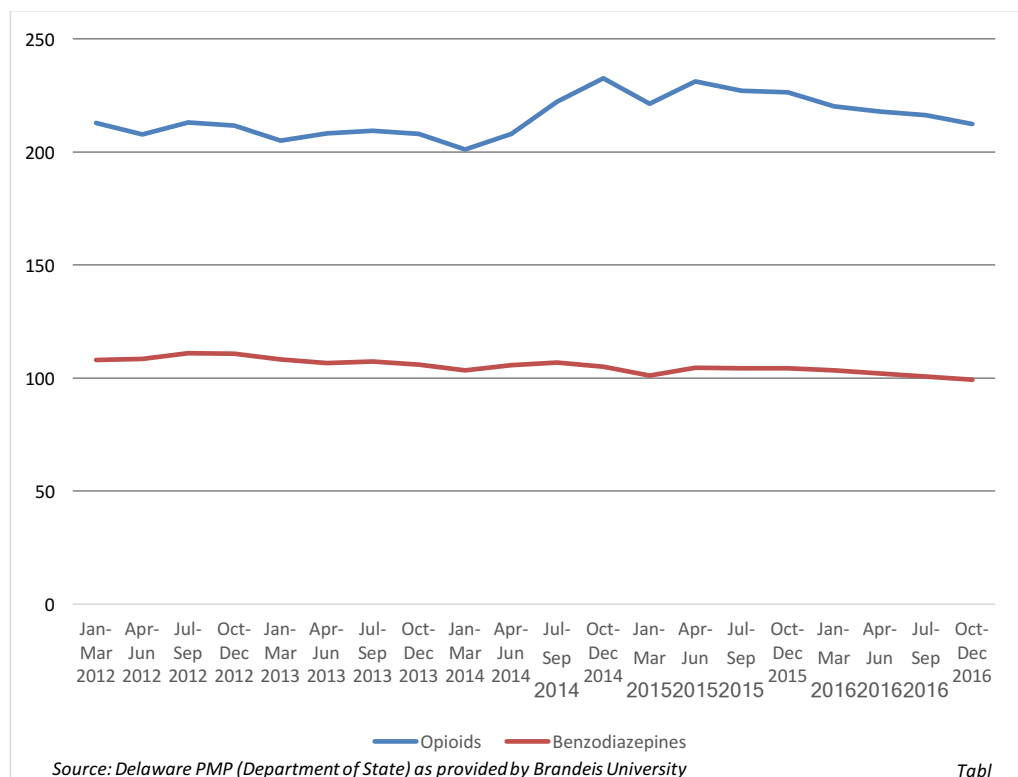


Figure 4. Percentage of days with overlapping prescriptions across opioid and benzodiazepine drug classes and across opioid release forms, Delaware, January 2012 - December 2016

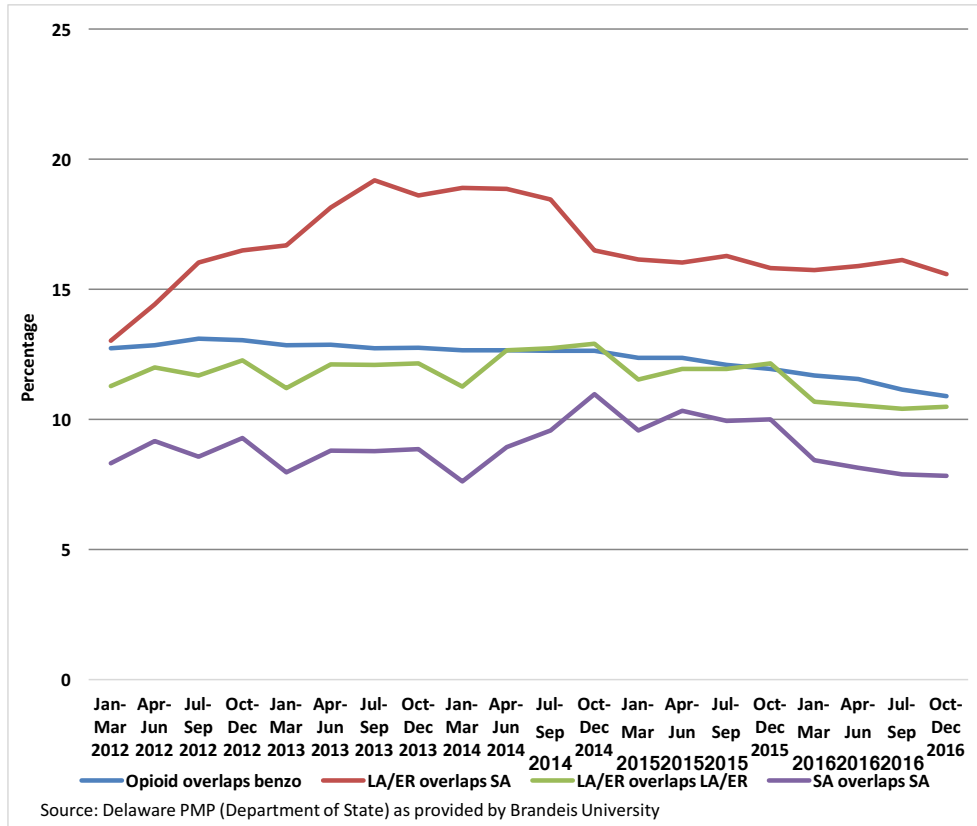
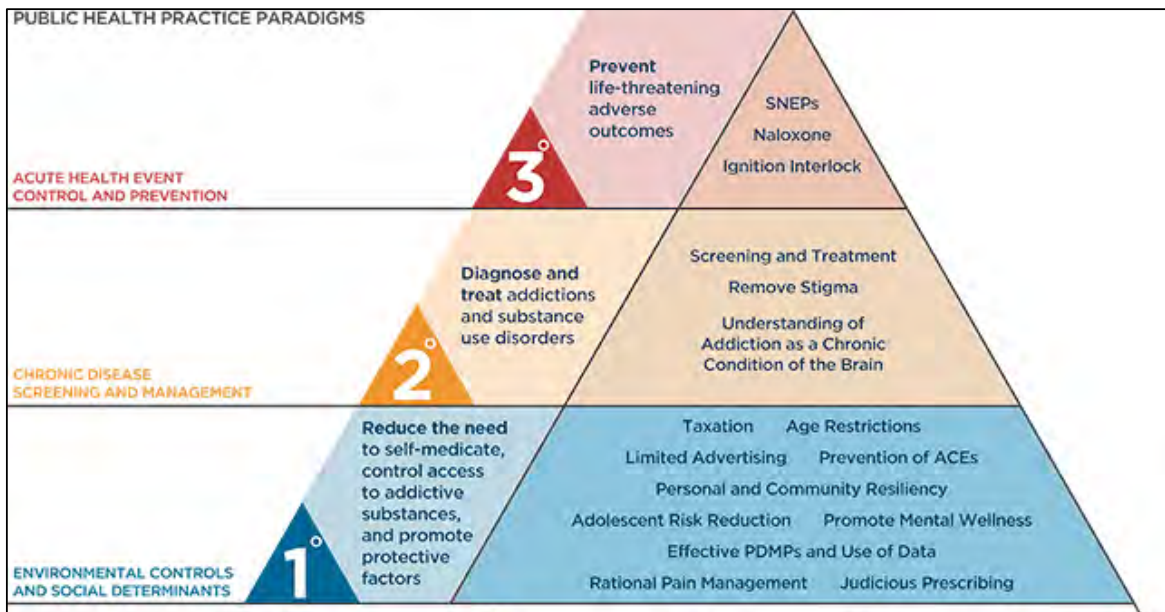


Figure 5. Substance Misuse and Addictions Prevention Framework.



Source: Public Health Approaches to Preventing Substance Misuse and Addictions, n.d.