

Informing Practice:

A Review of Overdose Fatality and Drug Monitoring Initiatives in Delaware

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Over the past few years state agencies and private organizations have started taking a closer look at overdose fatality in Delaware. Though policies have been drafted, protocols established, and treatment plans initiated, drug overdose deaths in Delaware have doubled since 1999. Delaware now ranks high on the national list for overdose mortality.¹ This article will examine current statewide strategies and innovative collaborations between the law and health care communities to combat this epidemic.

Current Trends

Over the past four years overdose, death rates have steadily increased. As a result, data associated with several government agencies were reviewed collaboratively with the goal of providing actionable information that could be shared with other government officials. When examined in totality, these data continue to demonstrate alarming trends across the lifespan.

Four variables were examined and correlated with regard to age and contact. Looking at 2016, there were significant correlations in the peaks between contact with law enforcement and treatment programs (see Figure 1). There were also age correlations seen with Narcan administration by emergency providers compared to overdose fatality data. These correlations support the argument that without access to one variable, the other variable would significantly increase. For example, the peaks in Figure 2 demonstrate that without the ability to administer Narcan in a pre-hospital setting, the number over overdose fatalities would likely more than double in Delaware.

Figure 1. Overdose death rate correlation between contact with law enforcement and treatment programs

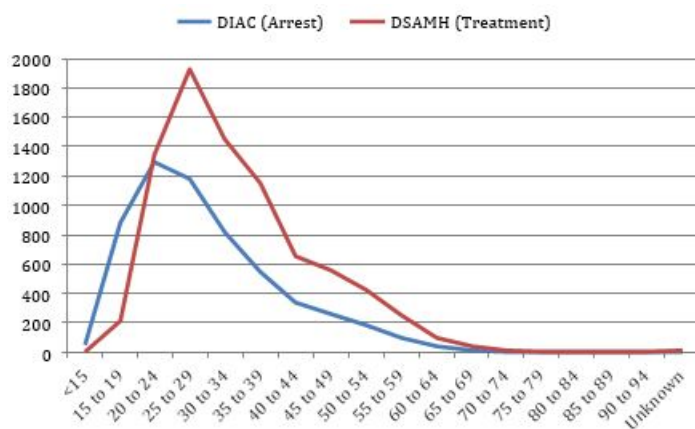
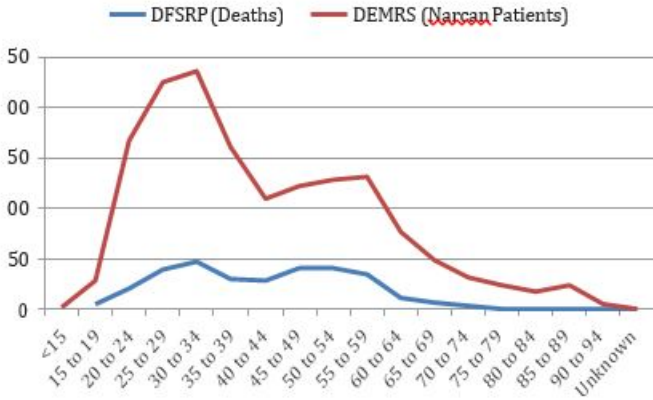


Figure 2. Overdose death rate compared to Narcan distribution



While New Castle County has seen the greatest increases at 31% over Kent and Sussex counties combined (see Figure 3),² demographically, this epidemic has impacted predominately white males, with growing trends noted in all sex and race categories (see Figure 3, 4 and 5).² Examining specific agency data points across the lifespan has allowed for a richer understanding of the challenges statewide. Collaborative work to examine current trends will provide evidence to support an interdisciplinary analysis of the Delaware drug overdose monitoring data.

Figure 3. Overdose deaths per year, Delaware Counties

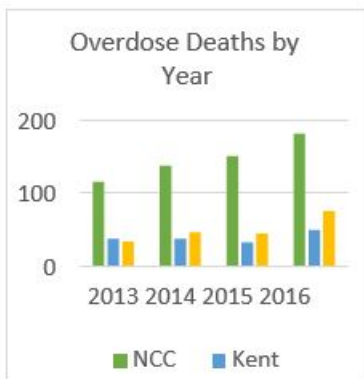


Figure 4. Overdose deaths per year, by Race

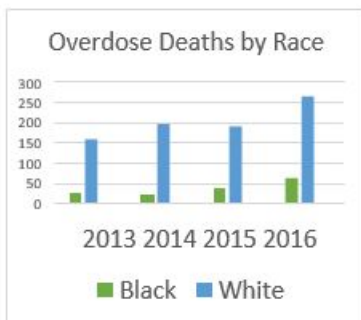
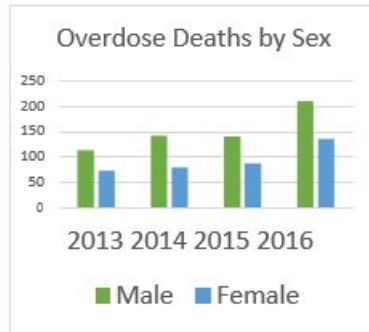


Figure 5. Overdose deaths per year, by Sex

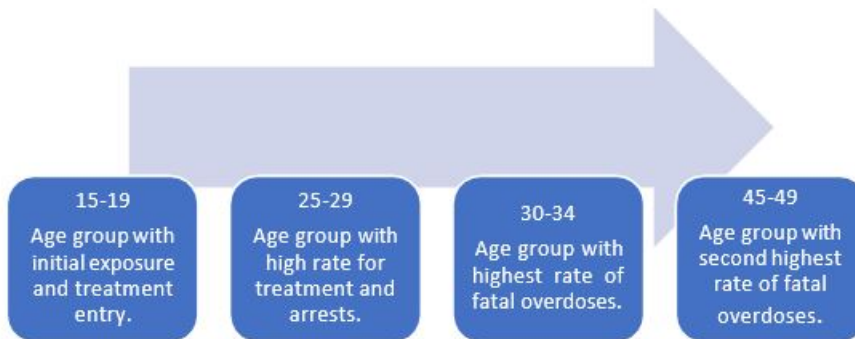


Delaware emergency medical services (EMS) have observed significant increases in overdose related patient contacts. In 2016, 2,274 Narcan doses were administered by EMS, with 62% of those administrations being male patients.³ Most of these administrations occurred in the home or residence (73%) with the top five locations for these incidents occurring in Wilmington (26%), Newark (12%), New Castle (7%), Dover (7%), and Millsboro (5%).⁴

The Delaware Division of Substance Abuse and Mental Health (DSAMH) has presented identifiable demographics for those in addiction treatment. In this review it was identified that while women made up 38% of those treated with Narcan in 2016, only 30% of these women entered treatment. Of those in treatment, 70% were white and 3% fell into the 15 to 19 year old age category. These data correlated with data provided by Delaware law enforcement. Delaware law enforcement agencies have recognized that 24% of all opioid arrests fell into the 25 to 29 age group, and consistent with treatment contacts, most arrests or law enforcement contacts occurred in New Castle County.³

Examining this cross-agency data from the four state organizations present clear trajectory across the lifespan. Initial contact most commonly occurred during treatment in the late teen years, with continued treatment or law enforcement contact in the 20-29 year old category, followed by increased rates of Narcan administration and death though into the 30-49 year old age groups. This is represented across the lifespan in figure 6.

Figure 6. Substance Abuse Data Trends By Age



Statewide Initiatives

In 2016 the State of Delaware was given the opportunity to participate in a learning lab offered by the National Governor's Association (NGA) in Washington D.C. This program concentrated on developing state strategies for reducing overdose and deaths associated with heroin and illicit fentanyl. The overall goal of this work was to improve information sharing and data analysis between law enforcement and public health agencies. Participants from four Delaware agencies were selected to participate on the Delaware team. As a result of this work the team members identified three goals: 1) develop a mechanism for gathering, analyzing and sharing actionable information with forensic science, public health and law enforcement; 2) formalize a Delaware action committee working in conjunction with High Intensity Drug Trafficking Association (HIDTA) representatives; and 3) leverage resources to establish sustainable infrastructure for information sharing.

The first goal was accomplished through an integrative process whereby data was examined between several agencies statewide. This innovative work resulted in the creation of the Delaware Drug Monitoring Initiative (DMI) Report. This report is currently in its infancy but is being utilized on a quarterly basis for situational awareness by examining data from the following state agencies:

- Delaware Division of Forensic Science (DFS), provides data related to toxicology drug testing and death;
- Delaware Emergency Medical Reporting System (DEMRS), provides data related to first responders and Narcan administration;
- Delaware Information and Analysis Center (DIAC), provides data related to law enforcement and arrests;
- Delaware Division of Substance Abuse and Mental Health (DSAMH), provides data related to treatment and addiction services.

To better address the issues related to the drug epidemic affecting Delaware, the objective of the DMI report is innovative as it examines data to identify correlations.

The goal of the DMI report is to aid multiple agencies across Delaware. The DMI stimulates the sharing of consistent, actionable information across agencies, with government officials who are

in a position to propose innovative strategies designed at impacting the opiate crisis. The ability to cross-examine data from agencies with very different focuses allows for a collaboration and information sharing process that in the past, have not easily been accomplished in government systems. For example, by using the information presented in this report, when peaks are identified in fatal overdose or law enforcement activity in a certain community or geographical area, personnel from addiction treatment organizations could initiate focused strategies to reach out to individuals in those peak communities. It is the consensus of these agencies that efforts to identify those in jeopardy of addiction, and or overdose, will help support additional treatment or law enforcement related programs.

The second goal was initiated in 2016 with the formation of the Drug Monitoring Initiative Action Committee (DMIAC). The mission of the DMIAC is to impact the addiction epidemic in Delaware through a unified interdisciplinary team for the purposes of data collection, research analysis and the development of strategies, to positively influence the statewide response to overdose and addiction. This work is done through collaboration between state, local and private sector participants, all working to promote information sharing strategies and efficient utilization of data with the goal of guiding statewide responses and initiatives. While this committee is in its infancy, collaboration between private sector and governmental agencies has promoted consistent information sharing across organizations.

The development of this information sharing concept fosters an innovative approach to the creation of effective strategies for all stakeholders.

The last goal of the NGA learning lab was to leverage resources to establish a sustainable infrastructure. This work required all participating agencies to develop written agreements to promote information sharing.

Information would then be collectively gathered and analyzed to create the quarterly DMI report. With this sharing of information, all data remains the property of the submitting agency and all reports are leveraged through the Department of Safety and Homeland Security criminologist collaborating with the Department of Health and Social Services epidemiologists. These macro-monitoring efforts allow for the promotion of informed decision making across state departments, where findings and actionable recommendations can be evidence based and supported by statewide data. The development of these memorandums of understanding fleshed out the information sharing challenges faced by each state division. Addressing concerns with protected medical information, classified investigative processes and the de-identification of data allowed for a broader approach to innovative strategy development.

In 2016 the Delaware General Assembly, through the passage of SB 174, established the Overdose Fatality Review Commission (Commission). Housed under the Delaware Attorney General's office, the purpose of this commission is to review all overdose fatalities in Delaware that involve prescriptions, opiates, heroin, fentanyl and other illicit drugs then provide elected officials with data driven recommendations to prevent future overdoses. Membership on the Commission includes representatives from state agencies, health care providers, mental health professionals, public advocacy groups, law enforcement and legal counsel representation. This effort is facilitated by the establishment of three county wide regional review teams. These regional teams are charged with reviewing every death by overdose in accordance with the statutory requirements, then report findings back to the Commission for action.² The duties assigned to the Commission are two-fold: 1) advising the Governor and members of the General

Assembly, annually, regarding those practices or conditions which impact the frequency of overdose deaths involving opiates, fentanyl or heroin and suggesting ways to reduce the frequency of such overdose deaths; and 2) investigating and reviewing the facts and circumstances of all overdose deaths involving opiates, fentanyl or heroin which occur in Delaware for the purpose of making system-wide findings or recommendations arising from the investigations and regional review process.

When Delaware collaborates with federal agencies such as the High Intensity Drug Trafficking Areas (HIDTA) program, other state agency stakeholders, private sector representatives on the Commission, and members of the DMIAC, one process can be established to allow each organization to inform the other. This cross-collaboration work promotes a broader examination of the opiate crisis in Delaware whereby alternative perspectives are considered and incidents occurring in other jurisdictions or surrounding states are monitored.

Lessons Learned

Creating a statewide infrastructure does not come without challenges. Far too often agencies become so focused on how that particular agency is going to address a problem, that frequently personnel lose sight of the value of cooperation and collaboration. The projects discussed in this article have demonstrated the criticality of a holistic approach to addressing a large scale problem. The overall goal of this holistic approach is three-fold with focuses on awareness, intervention and prevention.

Collaborative efforts between health and law enforcement have established new paradigms and partnerships. These working relationships contribute to a state of readiness that was not seen in government a few short years ago.³ The ability to balance confidentiality requirements of both professions can be maintained with the willingness to consider operational needs of both agencies. Health agencies have access to sensitive medical information. Much of this information is protected by the Health Information, Portability and Accountability Act (HIPAA), as well as other federal and state laws. Health officials are prohibited from openly sharing sensitive information if not for the purpose of providing continued care.⁴ In the alternative, often times law enforcement are prohibited from sharing sensitive investigative information in an effort to protect the integrity of casework. Butler et al. has identified that mitigating potential conflicts can be accomplished through careful planning.³

Confidentiality in health based agencies, for the purposes of protecting sensitive health information, is balanced with the confidentiality requirements in law enforcement agencies for the purposes of protecting the integrity of sensitive investigative information. Given the checks and balances required by both groups and the need to work in concert, new partnerships between public health and the law enforcement communities are evolving in both the federal and state government agencies. Through the creation of working agreements and clarification of legal authority beforehand, solid working relationships can be established. Increasing communications and developing an understanding of other perspectives between government agencies, especially between public health, medical providers, emergency services, forensic agencies, and law enforcement intelligence agencies lessens the necessity to choose between agencies.

Health and law enforcement must understand each other's work, standards and culture.³ Each agency offers a unique perspective and understanding this perspective, expands opportunities for statewide agencies to work together. Mutual collaboration and a willingness to work together

will only improve the range of services offered. Doing this, will allow us to better serve the citizens impacted by this crisis.

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