



*Executive Summary*

**Opiate-Related Overdose Deaths  
in Allegheny County  
Risks and Opportunities  
for Intervention**

*Prepared by the Allegheny County Department of Human Services  
and the Allegheny County Health Department*

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AUTHORS

Eric Hulsey, Dr.PH., M.A. | LuAnn Brink, Ph.D., M.P.H. | Erin Dalton  
Latika Davis-Jones, Ph.D., M.P.H., M.S.W. | Catherine Jensen  
Michelle Kurta, Ph.D., M.P.H. | Denise Macerelli, L.S.W., A.C.S.W. | Qitang Wang  
Abby Wilson, J.D., LL.M. | Karen Hacker, M.D., M.P.H.

## **INTRODUCTION**

Since 2008, Allegheny County has experienced an increase in opioid overdoses that culminated in 422 deaths in 2015. The local experience mirrors the epidemic nationally. Research confirms that the recent epidemic of heroin use throughout the U.S. has been influenced by several factors, including the increase in opioid prescriptions for pain, marketing and formulation changes for long-acting opioid analgesics, and the cheap price of heroin.

In response to the overdose crisis, the Commonwealth of Pennsylvania and Allegheny County have developed, and are implementing, a number of plans to reduce opiate-related overdose fatalities. These include better overdose surveillance, improved healthcare strategies, and increased distribution of naloxone, the antidote to an opiate overdose. The plans involve a number of multi-system partners, including the Allegheny County Health Department, the Allegheny County Department of Human Services, the Allegheny County Medical Examiner, the U.S. Attorney, Poison Control, Prevention Point Pittsburgh, and the University of Pittsburgh and its Institute of Politics.

As the epidemic grows, it is critical that we understand all aspects in order to identify opportunities for intervention. This report, a joint effort of the Allegheny County Health Department (ACHD) and the Allegheny County Department of Human Services (DHS), attempts to synthesize available data sources on opiate overdoses in Allegheny County from 2008 through 2014, and has the following goals:

- Use data to better understand risk factors for opiate overdose in Allegheny County.
- Identify opportunities for intervention.
- Assess the impact of strategies currently in place to save lives at risk of fatal overdose.
- Provide recommendations for policymakers and other cross-system overdose initiatives in the region, based on available data.

This report is a call to action for everyone touched by the overdose epidemic: people at risk of overdose; their friends, families and neighbors; and the public health, social service and criminal justice communities. Its key messages are unequivocal: Help for people at risk of overdose is most needed at specific times, everyone has a role to play, and there is no time to waste.

## METHODOLOGY

The data used for this report come from the DHS Data Warehouse and a variety of other sources, including the Allegheny County Medical Examiner's Office (ACMEO), hospital emergency departments and Emergency Medical Services (EMS). The DHS Data Warehouse is an electronic repository of information about publicly funded human services utilization in Allegheny County. The Warehouse contains approximately 1.43 billion records representing more than 1.2 million distinct clients, and includes data from 29 sources (both internal and external to DHS) such as behavioral health, aging, public benefits, housing, criminal justice and public schools.

The authors matched ACMEO autopsy reports of opiate-related overdose deaths (1,355 County residents) over seven years with records in the DHS Data Warehouse, and analyzed other relevant data such as 911 records. Over 60 percent of the people who died of opioid overdoses from 2008 through 2014 were matched to one or more records within the Data Warehouse.

## KEY FINDINGS

### (1) High-risk communities

The census tracts where the highest numbers of opiate-related overdose deaths occurred were in **Spring Hill-City View, Sharpsburg, Penn Hills, Allentown, Beechview, Mount Oliver Borough and Carrick.**

A hot-spot analysis was conducted to identify statistically significant spatial clusters of higher fatal overdose counts. The results indicate clusters in communities in the south and west end neighborhoods of Pittsburgh. **In over 82 percent of cases, the person died within one mile (traveling distance) of their known residence.**

### (2) High-risk periods and known intercept points

Overdose deaths were more likely to occur following a period of abstinence and/or involvement with a behavioral healthcare service.

#### High-risk period following jail release

The data show that 211 of the 1,355 people who died from an opioid overdose had been incarcerated and released from the Allegheny County Jail in the year prior to their death. The largest number of these overdose deaths (54 of 211 or 26%) occurred during the first 30 days after release from the jail. More than half (109 of 211 or 52%) occurred during the first 90 days.

**Overdose death and recent mental health service**

Of the 1,355 people who died from an opioid overdose, 510 (36%) had received a publicly funded mental health treatment service in the year prior to their death. Opiate-related fatalities occurred most frequently (45% or 231 of 510) within 30 days of a recent mental health service. Forty-seven percent of those who died in the first 30 days actually died within a week of a mental health service, suggesting that they may have been actively engaged in treatment.

**People leaving rehabilitation and involved in methadone maintenance appear to be at high risk for overdose**

There were 350 people (25%) who had received a publicly funded substance use disorder (SUD) treatment service in the year prior to death. Results suggest that opiate-related fatalities occurred most frequently (38% or 134 of 350) within 30 days of a recent SUD treatment service; rehabilitation and methadone maintenance were the two most common services received.

**(3) Heroin, not prescription opioids, was increasingly indicated in more recent overdose deaths.**

There were an increasing number of overdose fatalities that involved prescription opiate medications until 2011, when heroin became increasingly indicated in fatal overdoses.

**(4) Suboxone and Vivitrol did not directly contribute significantly to overdose deaths.**

These medications, used to treat opioid use disorders, were not commonly indicated as substances contributing to death. Suboxone was indicated in only two deaths, and Vivitrol was not present in any deaths. Discontinuing treatment using these medications, however, may have resulted in an increased risk of overdose death.

**KEY RECOMMENDATIONS****High-Risk Communities**

1. Use data to continually monitor overdose activity in the County.
2. Utilize prevention strategies that target active drug users and their families (overdose prevention education, naloxone distribution and needle exchange programs) in higher-risk areas within the County.
3. Expand use of naloxone in high-risk communities by all first-responders and increase availability of naloxone in pharmacies in those same communities.
4. Provide drug take-back opportunities in communities of high risk.

**Act 139 / Good Samaritan Clause and the Use of Naloxone**

1. Improve public education regarding naloxone.
2. Expand the number of stakeholders who carry naloxone and actively refer people to treatment, especially police officers, probation/parole officers, child welfare workers and others who may encounter individuals at risk, in order to minimize, if not eliminate, missed opportunities for intervention.

3. Utilize targeted prevention strategies to reach active drug users and their families/friends to communicate the intentions and protections of Act 139, particularly the importance of administering naloxone and placing a life-saving call to 911 without fear of incrimination in the event of a witnessed overdose.

#### **Medication-Assisted Treatment**

1. Promote health communication strategies that educate the public about effective treatments for opioid use disorders, how they work and, depending on a person's unique situation, who might benefit from each.
2. Encourage providers of medication-assisted treatment (MAT) to more closely monitor their clients and develop protocols for aggressively engaging individuals who have missed appointment(s).
  - a. Insurers can improve communication to members prescribed these medications (and potentially their family members) to ensure their re-engagement in treatment following periods of missed doses.
  - b. Improve communication to authorized prescribing physicians to alert them to patients potentially at risk of overdose.
3. Incorporate an overdose safety plan for all individuals receiving MAT, especially with regard to those in methadone maintenance treatment.

#### **Community-Based Behavioral Health**

1. Improve the ability of community-based mental health service providers to identify opiate use and overdose risk.
2. Increase overdose prevention education and naloxone access among people receiving behavioral health treatment, especially those leaving rehabilitation, those involved in methadone maintenance and those receiving mental health services.
3. Increase the incorporation of an overdose prevention plan within the safety or crisis plans for all people served by community-based mental health and SUD providers.
4. Increase the utilization of MAT approaches among people receiving behavioral health treatment for an opiate use disorder.

#### **Allegheny County Jail**

1. Universally assess all people incarcerated in the Allegheny County Jail for opiate use and overdose risk.
2. Provide naloxone to all people identified as using opiates, and therefore at risk of overdose, upon discharge from the Allegheny County Jail.
3. Deliver evidence-based treatments (such as MAT) to individuals incarcerated within the jail who are identified as having an opiate use disorder.

## **CONCLUSION**

Regardless of the perspective of the multiple systems involved in addressing opioid abuse, these data make it impossible to deny that opioid addiction and overdose have reached epidemic proportions. The contributors to this report hope that it stimulates discussion and informs a community response designed to reduce overdose deaths by addressing the key factors shown to increase the risk of overdose and death.