

pennsylvania
DEPARTMENT OF DRUG AND
ALCOHOL PROGRAMS



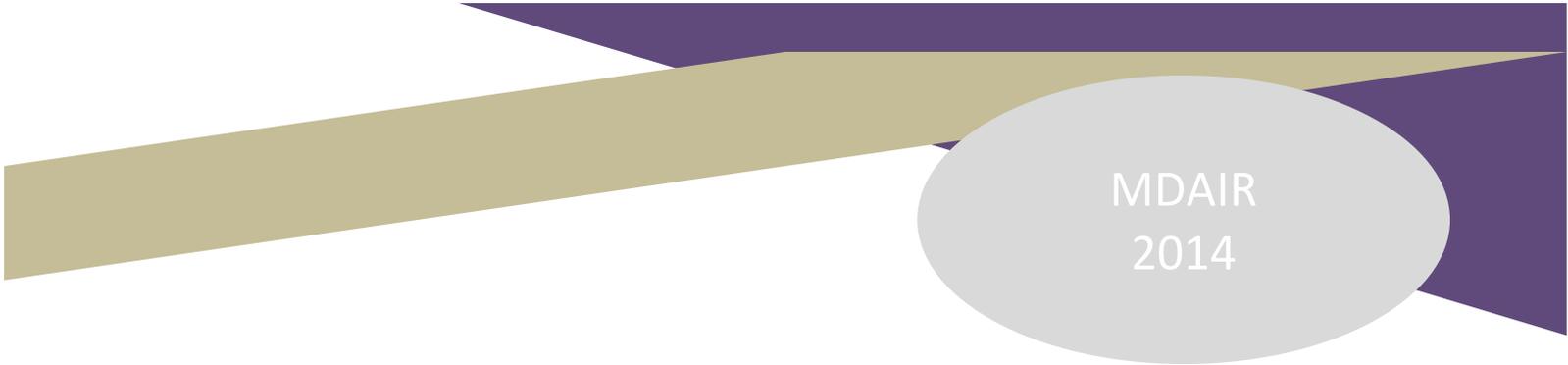
MDAIR

Methadone Death & Incident Review
Promoting Safety, Reducing Methadone-Related Deaths and
Incidents and Improving Treatment Practices

2014 Annual Report

Table of Contents

MDAIR Mission & Vision Statement	03
MDAIR Team	04
Legislative Mandates	06
Acknowledgments	08
Letter from the Secretary	09
<hr/>	
Background	11
Introduction	12
Data Collection Elements	14
Rate of Case Completion	15
<hr/>	
Methodology	16
Results	19
<hr/>	
References	38
<hr/>	
Recommendations	40
<hr/>	
2014 MDAIR Recommendations	
<hr/>	
Appendices	43
APPENDIX A - MDAIR ACT (Act 148 of 2012)	
APPENDIX B - MDAIR 2013 RECOMMENDATIONS	
APPENDIX C - MDAIR CORONERS REPORT	
APPENDIX D - MDAIR TREATMENT PROVIDER FORM	
APPENDIX E - MDAIR GENERAL REPORTING FORM	
APPENDIX F - MDAIR ACTION - DEATH FORM	
APPENDIX G - MDAIR ACTION - INCIDENT FORM	



MDAIR 2014

Mission

The mission of the Methadone Death & Incident Review Team (MDAIR) is to reduce methadone-related deaths and incidents that occur as a result of dangerous drug interactions by improving related treatment practices and promoting safe prescribing practices.

Vision

MDAIR'S vision is to identify and promote best practices and policies to ensure access to safe, high quality and cost effective methadone related services.



MDAIR Team Members

Gary Tennis, Chair
Secretary
Department of Drug and Alcohol Programs

Cheryl Dondero
Deputy Secretary
Department of Drug and Alcohol Programs

Glen Cooper (January – June 2014)
Dr. William Santoro (September – December 2014)
Narcotic Treatment Program (NTP) Representative

Stephen B. Roman
Greenbriar Treatment Center
Non-Narcotic Licensed Provider Representative

Joe Blackburn (2014)
Pennsylvania Chiefs of Police Association
Law Enforcement Representative

Dr. Thomas Riordan
Addiction Psychiatry and Consultation
Medical Community Representative

James B. Martin
Lehigh County District Attorney
District Attorney Representative

Bill Stauffer, LSW
Executive Director of PRO-A
Member of the Public

Scott M. Grim
Lehigh County Coroner
Coroner/Medical Examiner Representative

Debra Murray
Patient or Family Advocate

MDAIR Discretionary Support Members

Dale Adair, M.D.
Medical Director
Department of Human Services
Office of Mental Health and Substance Abuse
Services

David Kelley, M.D.
Chief Medical Officer
Department of Human Services
Office of Medical Assistance Programs

Susan M. Shanaman
Legislative Liaison
Pennsylvania State Coroner Association

Michele Denk
Executive Director
PA Association of County Drug and Alcohol
Administrators

Jonathan Wasp
Regional Director
CRC Health Group

DDAP Department Staff

Wenona Wake
Director, Bureau of Quality Assurance for
Prevention and Treatment

Tawny Mummah
Deputy General Counsel

Garrison Gladfelter (June – December 2014)
Director, Division of Accountability and Program
Improvement

Ken Martz, Psy. D.
Special Assistant to the Secretary

Jocelyn Maddox
Program Representative, Division of
Accountability and Program Improvement

Nathanael Myers
Program Representative, Division of
Accountability and Program Improvement

MDAIR Act (Act 148 of 2012) mandates that the MDAIR Team shall:

- Develop a form for the submission of methadone-related deaths and methadone-related incidents to the team by any concerned party. (P.L. 1198, No. 148 Cl. 35, Section 3 (d)(6))
- Develop, in consultation with a statewide association representing county coroners and medical examiners, a model form for county coroners and medical examiners to use to report and transmit information regarding methadone-related deaths to the team. The Team and the statewide association representing county coroners and medical examiners shall collaborate to ensure that all methadone-related deaths are, to the fullest extent possible, identified by coroners and medical examiners. (Section 3 (d)(7))
- Develop and implement any other strategies that the MDAIR Team identifies to ensure that the most complete collection of methadone-related death and methadone-related serious incident cases is created. (Section 3 (d)(8))
- Examine the circumstances surrounding methadone-related deaths and methadone-related incidents in the commonwealth for the purpose of promoting safety, reducing methadone-related deaths and incidents and improving treatment practices. (Section 3 (a))
- Determine the role that methadone played in each death and methadone-related incident. (Section 4 (2))
- Communicate concerns to regulators and facilitate communication within the health care and legal systems about issues that could threaten health and public safety. (Section 4 (3))
- Develop best practices to prevent future methadone-related deaths and methadone-related incidents. The best practices shall be promulgated by the Department of Drug and Alcohol Programs (DDAP) as regulations and posted on its website. (Section 4 (4))

- Collect and store data on the number of methadone-related deaths and methadone-related incidents and provide a brief description of each death and incident. The aggregate statistics shall be posted on DDAP's website. The Team may collect and store data concerning deaths and incidents related to other drugs used in opioid treatment. (Section 4 (5))
- Prepare an annual report that shall be posted on DDAP's website and distributed to the Majority and Minority Chairs of the House and Senate Judiciary Committees, the Senate Public Health and Welfare Committee, and the House Human Services Committee. Each report shall: (i) provide public information regarding the number of causes of methadone-related deaths and incidents; (ii) provide aggregate data on a five-year trend on methadone-related deaths and incidents, when available; (iii) make recommendations to prevent future methadone-related deaths, methadone-related incidents and abuse and set forth the department's plan for implementing the recommendations; (iv) recommend changes to statutes and regulations to decrease methadone-related deaths and incidents; and, (v) provide a report on methadone-related deaths and methadone-related incidents and concerns regarding narcotic treatment programs. (Section 4 (9))

* The MDAIR Act can also be found at 71 P.S. §§ 1691.1-1691.9. However, the references to the MDAIR Act above are consistent with the copy of the Act attached hereto as Appendix A.

Acknowledgments

On behalf of the Department of Drug and Alcohol Programs and the Methadone Death and Incident Review Team, I would like to express heartfelt appreciation and admiration for the tremendous work of DDAP program representatives Jocelyn Maddox and Nate Myers, who worked tirelessly under the careful and wise supervision of DDAP's Quality Assurance Bureau Director Wenona Wake. Jocelyn and Nate diligently and brilliantly labored to continuously improve the quality of the MDAIR Team's work, both with respect to increasingly thorough information gathering and better analysis of the data gathered. The Team's work depends on them; without the excellence they bring to the task, the Team would not be able to do its job.

We also want to thank the MDAIR Team members (both official and discretionary). Uncompensated, these public-spirited citizens volunteered a great deal of their time - we have six hour meetings every other month. Adding in the many hours of travel time, and preparation before the meetings, these volunteers have given Pennsylvania thousands of dollars in time and expertise.

For their efforts, all the citizens of Pennsylvania owe the Team members, Jocelyn and Nate a deep debt of gratitude. We anticipate that their work will result in better methadone-assisted treatment and fewer deaths and incidents. No acknowledgement or appreciation can replace the knowledge that one has engaged in work that will save the lives of some of our fellow human beings; we hope and believe that knowledge has made their sacrifice worth it.



Letter from the Secretary

Pennsylvania, like the rest of the nation, is in the throes of the worst opioid overdose crisis in its history. Last year, at least 2,489 Pennsylvanians died from drug overdoses; once again, overdoses exceed car crashes as the leading cause of accidental death both in our Commonwealth and our nation. Throughout all our lifetimes, untreated or undertreated drug and alcohol addiction has caused extraordinary suffering in one out of four families has driven most of the criminal activity and criminal justice costs suffered by our communities, caused domestic violence, child abuse and workplace safety issues, and generated exploding healthcare costs for addiction-driven diseases such as HIV-Aids and Hepatitis C. Today, the suffering and deaths are at unprecedented levels, spreading grief and heartbreak throughout every community; we all have either lost a loved one to overdose or know someone who has.

And yet, according to the Department of Health & Human Services Substance Abuse & Mental Health Services Administration (SAMHSA), nationally we fund enough treatment for only one person out of every ten suffering with this disease. Pennsylvania has strong insurance and Medicaid laws that have led to better results – funding for one of every seven or eight Pennsylvanians. But the bottom line is that throughout the nation we seriously underfund treatment of this disease. We pay dearly – in loss of life, in other human suffering, and financially – for the irrational policy providing a fraction of the treatment needed.

A comprehensive treatment continuum is essential to combating this unnecessary loss of life and damage to our families and communities. One important component of our comprehensive treatment system for those suffering with heroin and other opioid addiction is medication-assisted treatment with methadone. Pennsylvania's 72 narcotic treatment programs perform a life-saving function for the approximately 23,500 patients they serve every day.

For this reason, it is critical that the Department of Drug & Alcohol Programs collaborate with our narcotic treatment programs and their payors to ensure that the safest and most effective methadone practices are implemented and paid for. The genesis of Pennsylvania's Methadone Death and Incident Review Team is described elsewhere in this report, but suffice it to say that the need for safer methadone practices was underscored by the six-fold increase in methadone-related overdose deaths between 1999 and 2009 (reported by the Center for Disease Control).

If there has been one dominant theme in our work on 2014 cases, it's that we need to be placing much more attention on the issue of combined methadone and *benzodiazepine* use. Three of four methadone deaths involved this combination, usually with other drugs as well. We know from repeated reports that combining these substances can create a "high" that is directly counter to the work of treatment. We also know that there is a propensity for a non-lethal dose of methadone and a non-lethal dose of benzodiazepines to combine to form a lethal dose by causing respiratory arrest. The Team's 2014 recommendations comprise a robust "next step" toward addressing the dangerous co-use of these medications, but as long as the death rate for

methadone-benzodiazepine remains high, the MDAIR Team in future years may well decide to consider additional recommendations.

On another matter, for a number of years there has been some controversy about how many methadone-related deaths involve methadone that has been prescribed for *pain*, as opposed to involving methadone as a medicine to assist *addiction* treatment. Unfortunately, the MDAIR Team has not been able to successfully access patient information from physicians who have prescribed methadone for pain to those who have suffered methadone-related deaths and incidents. Accordingly, we cannot determine which system (addiction treatment or pain treatment) is driving most methadone-related deaths. This same limitation has also made it very difficult to determine how many deaths involve methadone that has been illegally diverted to the decedent. But we do anticipate that with the future implementation of the ABC-MAP prescription monitoring program – to which MDAIR staff statutorily has access – we will be able to shed light on the issue in future years.

I would like to once again thank the General Assembly for its leadership in enacting our Methadone Death Review law (Act 148 of 2012) and for its subsequent work in enacting the Prescription Drug Monitoring statute and the Good Samaritan/Access to Naloxone statute. These laws reflect a steadfast commitment to addressing Pennsylvania’s terrible drug overdose problem.

Pennsylvania is the only state in the entire nation with a Methadone Death and Incident Review Team. As a result, the work of this Team will be useful in guiding policy toward safer and more effective methadone-assisted treatment, not just in Pennsylvania but throughout the nation. To our Team members who volunteer for the sometimes grueling bi-monthly six-hour meetings, they can know that their efforts will be rewarded. While there’s little chance they will have the satisfaction of meeting any of those whose lives they are saving, the reality that this is lifesaving work cannot be questioned. The Commonwealth and the nation owe them and our hardworking MDAIR staff a great debt of gratitude.



Background

For over a decade, there has been a rise in the national rate of abuse of prescription and illicit opioids. This increase in opioid abuse has garnered the attention of drug and alcohol treatment professionals, health care providers, politicians and families.

Opioids are chemicals that are both naturally occurring (opiates) and manufactured synthetically (other opioids). The use of these drugs is regulated by federal and state law. Opioids are most commonly utilized legally in medicine as prescription drugs to treat pain conditions. Examples of prescription opioids include: morphine, codeine, hydrocodone, oxycodone, fentanyl and methadone. Forms of illicit opioids such as heroin are abused on the street.

Prescription methadone is also available for treatment of opioid addiction. This treatment model was initially supported in 1965 with the publication of the study results of Drs. Vincent Dole and Marie Nyswander. In combination with appropriate psychosocial treatment, methadone is an effective tool in the treatment of opioid addiction, as well as pain management when prescribed and monitored by a conscientious and properly trained physician. While effective in treating opioid addiction and chronic pain, methadone treatment had setbacks in recent years to include an increase in incident reports and deaths.

In 2010, a fatal auto accident involving two Pennsylvania residents and a methadone maintenance patient spurred lawmakers to begin investigating these issues. These events in concurrence with the efforts of a grieving mother, Marti Hottenstein, prompted the drafting of Karl's Law. Subsequently, in 2012 Pennsylvania State Representative Gene DiGirolamo sponsored House Bill 140 which addresses a national rise in methadone-related deaths and incidents. This bill was signed into law on Oct 24, 2012 as Act 148, the Methadone Death and Incident Review Act (MDAIR Act; Act 148) (See Appendix A).

Act 148 is unique to Pennsylvania, as no other state has adopted this innovative investigation process. The implementation of the act has promoted safer methadone prescribing practices and has created greater awareness regarding drug interactions.

The purpose of the MDAIR Act is to examine the circumstances surrounding deaths and incidents where methadone was the primary, secondary or a contributing factor in the death or incident. The MDAIR Team has been established to review the cases that fall within the purview of the statute. By legislation, the Team membership is comprised of:

1. Secretary of the Department of Drug and Alcohol Programs (DDAP) or a designee
2. Director of the Bureau of Treatment, Prevention and Intervention (Act 148 provides that Director of Bureau of Drug and Alcohol Programs is to be on the MDAIR Team. However, that Bureau has been renamed as the Bureau of Treatment, Prevention and Intervention)
3. A representative from a narcotic treatment program
4. A representative from a licensed drug and alcohol addiction treatment program that is not a narcotic treatment program
5. A representative from law enforcement
6. A representative from the medical community
7. A district attorney
8. A coroner or medical examiner
9. A member of the public
10. A patient or family advocate

Members of the MDAIR Team meet regularly to review cases involving deaths and incidents that are purported to involve methadone and to work toward appropriate recommendations based on that review. These cases are prepared and presented to the Team by DDAP staff.

Information is provided by coroners, private citizens, narcotic treatment programs (NTP), medical personnel and police departments. DDAP staff investigates the information submitted, uses all available resources, and provides factual reports to the Team based on the available information. In order to compile information, staff request and review, as appropriate, coroners reports, death certificates, law enforcement records, medical records, children and youth reports, court records, traffic reports, NTP incident reports and facility records, family records, Department of Human Services information and reports, and multiple media resources. In reviewing the cases, the MDAIR Team has the following objectives:

1. Review cases involving deaths and incidents where methadone was the primary, secondary or a contributing factor in the death or incident.
2. Determine the role that methadone played in each methadone-related death and incident.

3. Communicate concerns to regulators and facilitate communication within the healthcare and legal systems about issues that could threaten health and public safety.
4. Develop best practices and regulations to reduce future methadone-related deaths and incidents. This endeavor is meant to inform regulatory change to be promulgated by DDAP.

We conducted eight MDAIR Team meetings in 2014, all chaired by the Secretary of DDAP or his designee. In accordance with Act 148, the meetings are not open to the public, and any proceedings, deliberations and records are confidential and not subject to the Right-to-Know-Law. However, any person with information relevant to the review may be invited to attend and provide information at a meeting.

Upon completion of the discussion, the Team makes determinations about each case and, where appropriate, recommendations regarding steps that can be taken to prevent or reduce the likelihood of similar incidents in the future. Team recommendations are voted upon, and some of the opinions expressed therein may not be the view held by all members of the Team.

The MDAIR Team takes every precaution to ensure that the confidentiality of individuals involved in a methadone-related death or incident are maintained as outlined in Act 148. Team members are required to sign an agreement not to share identifying information outside of the Team meeting. In addition, all cases reviewed by the MDAIR Team are redacted to remove pertinent identifying information.

Data Collection

The MDAIR staff has developed a database designed to track case-related data elements. The creation of this tool has centralized case information for querying and analysis. All of the included charts and graphs have been created utilizing these data elements. Data is collected and evaluated in the following areas, if applicable or available.

- Type of Occurrence: Death or Incident
- Date of Death or Incident
- Age, Sex, Race and Marital Status
- County of Residence
- County the Death or Incident Occurred
- Date the Incident/Death was First Reported to MDAIR Staff
- Methadone Prescriber – Illicit, NTP, Other Private Physician, Pain Management Physician or Veterans Administration
- Receipt of NTP Unusual Incident Report
- Date of NTP Unusual Incident Report
- Receipt of NTP MDAIR Report
- Date of NTP MDAIR Report
- Receipt of Police Report
- Date of Police Report
- Receipt of Coroner’s Report
- Date of Coroner’s Report
- Length of Methadone Treatment
- Determination of the Appropriateness of the Case for MDAIR Team Review
- Date of MDAIR Team Review
- Designation of Whether Methadone was a Contributing Factor to the Death or Incident
- Case Status – Pending Investigation, Active Investigation, Ready for Review, Non-MDAIR Case Closed and Case Closed – MDAIR
- DDAP MDAIR Staff Case Assignment
- Case Specific Recommendations
- Notes
- Cause of Death
- Drugs Present on the Toxicology Report
- Date of Case Closure

Pennsylvania is at the forefront of methadone-related data collection, as it is the only state that is tracking the source of the methadone in related deaths and incidents. The collection of this data and other critical elements will drive methadone policy and practice within Pennsylvania. It can also serve as a model for other states that are committed to reducing methadone-related deaths and incidents and that desire to improve their associated practices.

Rates of Completion

The 2014 reporting period demonstrated an overall increase in all areas of the MDAIR process. The growth of this initiative has precipitated the designation of two full time DDAP staff to meet the needs of this unfunded mandate. The innovations of these staff have established a database to track death and incident trends. Staff has also taken an active role in research initiatives, implementation of recommendations and leadership on external awareness of the MDAIR Act. These efforts have resulted in an increase in reporting.

The MDAIR staff received 63% more case referrals than during the 2013 reporting period. In addition, the rate of case investigation completion also increased by 167%. The MDAIR Team also reviewed more cases than during the previous reporting period. The number of MDAIR Team meetings also increased by 25% to accommodate the increased rate of referrals. Below are additional statistics regarding the rates of completion of MDAIR cases.

2013 MDAIR Case Rates of Completion

- During 2013, 146 case referrals were received by DDAP staff. Of those, 16 cases were presented to the MDAIR Team. The MDAIR staff researched 30 additional cases and determined these were not methadone-related deaths or incidents. At the close of 2013, the rate of completion for the MDAIR cases received during this year was 32%.
- In 2014, 38 cases from 2013 were presented to the MDAIR Team. Thirty-four additional cases were researched by the MDAIR staff and deemed to be unrelated to methadone. At the close of 2014, the rate of completion for cases received in 2013 was 81%.
- Currently there are 28 of the 2013 MDAIR cases being investigated, and they will be presented to the Team.

2014 MDAIR Case Rates of Completion

- The MDAIR staff received 238 case referrals in 2014. Of those, 28 cases were presented to the MDAIR Team. MDAIR staff researched an additional 23 cases and deemed them to be unrelated to methadone. At the close of 2014, the rate of completion for the MDAIR cases received in 2014 was 36%.
- Currently there are 187 of the 2014 MDAIR cases being investigated and they will be presented to the Team.

Methodology

“Poisoning is the leading cause of injury in the United States. Drugs – both illicit and pharmaceutical – are the major cause of poisoning deaths, accounting for 90% of poisoning deaths in 2011” (Chen et al., 2014). An estimated 80% of new heroin users came to use the drug after becoming addicted to prescription pain medication. In the 1990s, opioid painkiller prescriptions increased from 76 million in 1991 to 219 million in 2011, almost one for every American adult (see Figure 1). Around 2007, authorities began responding to growing addiction and overdose by cracking down on prescription excess and fraudulent ‘pill mills’. The euphoric

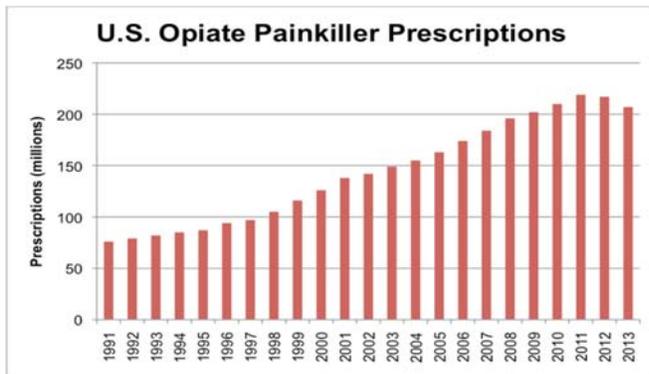


Figure 1: U.S. Opioid Prescriptions, 1991 – 2013
Source: Senate Caucus on International Narcotics Control
Note: It is the belief of the MDAIR Team that the author of the graph meant opioid rather than opiate.

effects of opioids increase the likelihood of misuse and abuse. Heroin addiction escalates quickly, and the withdrawal is painful. Patients who found themselves addicted and no longer able to access opioid prescriptions began buying their pills on the street. Many switched from opioid pills that cost up to \$50 to \$10 doses of heroin. For many, the cravings never end. Intense heroin addiction has led many to seek methadone treatment.

Methadone, a synthetic opioid that was originally marketed as a pain reliever, has

been a successful medication to assist the treatment of heroin addiction; however, it poses its own risks. According to Researched Abuse, Dependence and Addiction Related Surveillance (RADARS) and the poison centers of the United States, the “most common drug diverted in the United States is hydrocodone or oxycodone depending on the monitoring system. This is likely because these drugs are prescribed most frequently and are therefore the most widely available. In contrast, if the amount of a drug available is considered, the most common diverted drugs become methadone, hydromorphone and buprenorphine” (Dart, 2014). Additionally, “most methadone prescriptions were written by primary care providers or mid-level practitioners (e.g., nurse practitioners) rather than pain specialists. Nearly a third of prescriptions appear to have been dispensed to patients with no opioid prescriptions in the previous month (i.e., opioid-naïve patients)” (CDC, 2012). This study, along with others, suggests that methadone remains a drug that contributes disproportionately to opioid pain reliever overdoses and associated medical and social costs as it is involved in approximately one in three opioid-related overdose deaths. Its pharmacological traits make it more difficult to use safely for pain than other opioid pain relievers. However, there are benefits to utilizing methadone for pain. “The primary advantages of using methadone over other opioids for pain treatment are its long duration of action, relatively low cost, and availability in liquid formulation for oral use. It’s primary disadvantages are its long and unpredictable half-life and associated risk for accumulating toxic levels leading to severe

respiratory depression; its multiple interactions with other drugs, including frequently abused drugs such as antianxiety agents; and its ability to cause major disturbance of cardiac rhythm” (Paulozzi L. M., 2012).

The liquid formulation of methadone is primarily utilized by narcotic treatment programs. Methadone is a long-acting opioid agonist that binds to the opioid receptors. Methadone does not produce the intense euphoria of shorter acting opioids such as heroin; it can block the effect of other opioids and can suppress withdrawal for 24-36 hours.

Methadone, in combination with the clinically appropriate intensity of psychosocial treatment, can be an effective tool in treatment of opiate addiction. Methadone’s peak analgesic effect typically is earlier and shorter than its peak respiratory depressant effect. It has a long elimination half-life, and it takes on average four to five days for a steady state serum level to be achieved. As a result, the first two weeks of treatment initiation with methadone can be particularly high-risk period for overdose and adverse events as concurrent use of the substances results in an additive effect. Patients present daily to treatment programs to receive their methadone dose. Over time some patients earn take-home privileges and are able to administer the medication independently. Pennsylvania’s narcotic treatment programs are among the most heavily regulated treatment providers. Federal and state regulations have been established in an effort to ensure patient safety; however, it is difficult to monitor patient activity outside of the facility. Many patients managed by NTPs, private physicians and pain management clinics have encountered fatalities as a result of methadone use. This has precipitated the creation of the MDAIR Act.

The MDAIR Act was established to promote safety, reduce methadone-related deaths and incidents and to improve treatment practices. The Act requires DDAP to lead a Team of professionals in the investigation of methadone-related deaths and incidents that occur statewide. This Team is supported by designated departmental MDAIR staff. These staff determines whether a case is appropriate for the MDAIR Team based on the criteria established by Act 148. A methadone-related death, as defined by the act, is “a death where methadone was a primary or secondary cause of death or may have been a contributing factor. A methadone-related incident is defined as a situation where methadone may be a contributing factor which does not involve a fatality and involves a serious injury or unreasonable risk of death or serious injury” (Act 148 of 2012). Subsequent to its receipt, this information is presented to the MDAIR Team for review. In order to obtain these results, the following investigatory process was followed.

Deaths where methadone may have been a cause or contributing factor are initially identified by the medical examiner/coroner’s office following an autopsy. They complete and submit the coroner drug death report to MDAIR staff for analysis. Cases were eligible for analysis if the coroner’s drug death report indicates that methadone was a cause or contributing factor of their death. Cases were also selected if they were certified by physicians. The physicians’ determinations were validated through medical records, and it was verified that methadone was a

contributing factor to the death. Blood and urine screens were also performed to test for licit and illicit substances, such as alcohol, narcotics, opioids, marijuana, stimulants and depressants. The results of these screens are also recorded on the coroner drug death report or medical records when available. The presence of licit medications is also reported by coroner's and medical personnel. Further, the coroner's drug death report was supplemented by reports from NTPs, physicians and police. These tools were utilized to glean additional information regarding the circumstances of the decedent's death as well as to inform the MDAIR Team of their substance abuse and treatment history. The reports were further utilized to identify socio-demographic information and to tabulate trends. The MDAIR staff also collected information regarding methadone-related incidents.

A methadone-related incident does not involve a fatality. It captures categories of serious injury or unreasonable risk of death. There were five reported incidents in 2014. This information was certified by reports received from NTPs, police or medical personnel. In some instances, blood and/or urine screens were performed to test for licit and illicit substances. The reports were also utilized to gather socio-demographic information. Once the death and/or incident investigations are completed they are presented to the MDAIR Team. Subsequent to the presentation, all data elements are recorded in the MDAIR database.

An inclusive list of the MDAIR data elements can be found on page 14 of this report. New categories for 2014 include race, marital status, NTP program name, length of time on methadone, MDAIR Team determination and contributory drugs. Race, marital status, program name and length of time on methadone were extracted from the MDAIR Treatment provider form. The length of time on methadone was also obtained from medical records. Contributory drug information was extracted from the coroner drug death reports and medical records. Pharmacy records were also utilized to verify valid prescriptions. Each of these data elements along with those previously established is retained in an electronic MDAIR database.

Results

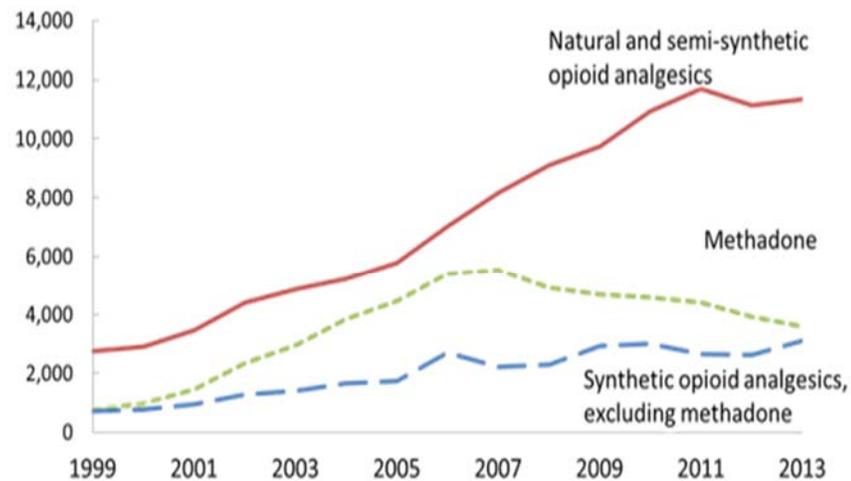
“In the U.S., the number of drug-poisoning deaths involving methadone, a synthetic opioid analgesic used to treat opioid dependency and pain, increased from 784 deaths in 1999 to 5,518 deaths in 2007; then it declined to 4,418 deaths in 2011. Methadone was involved in 26% of all opioid-analgesic poisoning deaths in 2011, compared with 38% of all opioid-analgesic poisoning deaths in 2007”

(Chen, et al, 2014).

Similar to the national average, Pennsylvanians continue to suffer from methadone overdoses.

The MDAIR staff received 238 reports for review in 2014. In 172 of the 238 reports, methadone was determined to be a contributing factor to the death or incident. MDAIR staff presented 66 cases to the MDAIR Team. These cases consisted of 61 deaths and five incidents. DDAP’s diligence has created awareness regarding methadone-related death and incidents resulting in increased reporting from stakeholders.

Figure 2. Number of opioid analgesic poisoning deaths by opioid analgesic category, United States, 1999--2013



NOTE: Opioid analgesic categories are mutually exclusive. Deaths involving more than one opioid analgesic category (e.g., a death involving both methadone and a natural and semi-synthetic opioid analgesics such as oxycodone) are counted in both categories.
SOURCE: CDC/NCHS, National Vital Statistics System, Mortality.

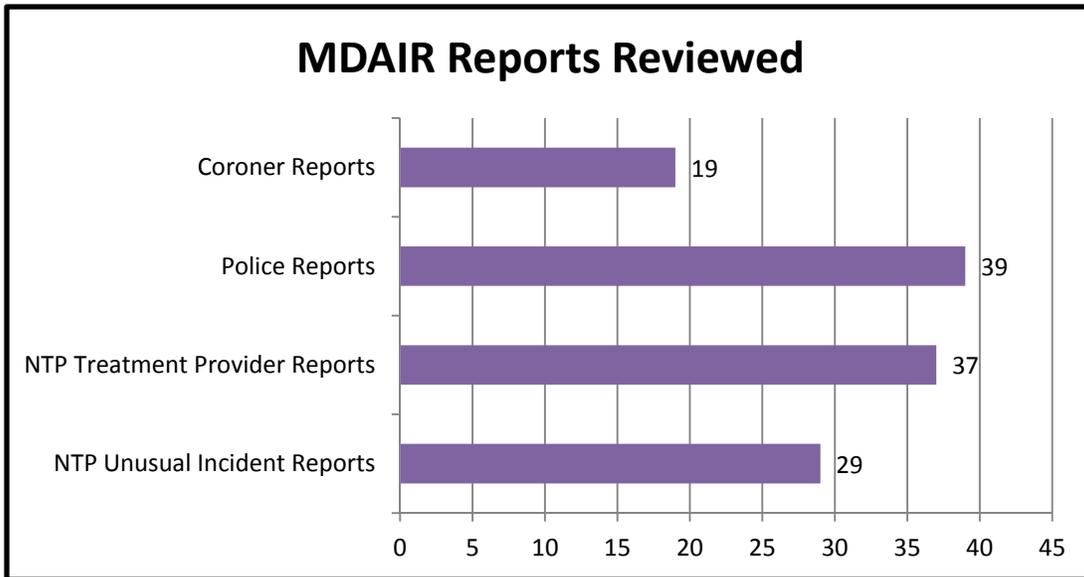


Figure 3: Number of reports received by DDAP - MDAIR staff
 Source: NTPs, Law Enforcement Agencies and Coroners/Medical Examiners, 2014

The chart provides cumulative totals for all reports received during 2014. In some instances, NTPs provided DDAP with two reports as they are required to submit the NTP unusual incident report and the NTP Treatment Provider Report. NTPs submit unusual incident reports in order to alert DDAP that a death or serious incident has occurred and they are also used for the purposes of MDAIR case reviews. Subsequent to this initial submission, NTPs provide additional details regarding the death or incident via the MDAIR treatment provider report. The investigation is further supplemented with the coroner’s drug death report and a police report, when applicable. All of the reports noted above may be received by MDAIR staff for each case; however, the reports are not always applicable. These reports are essential to the success of the MDAIR investigatory process and without the assistance of external stakeholders this could not be achieved.

Narcotic treatment providers continue to be the primary reporting source for methadone-related deaths and incidents; however, collaboration with law enforcement agencies has increased their reporting by 26%. DDAP staff worked cooperatively with Pennsylvania Chiefs of Police Association and Municipal Police Officers Education & Training Commission (MPOETC) to have the MDAIR initiative featured in their newsletters. Building these relationships with these external stakeholders has enabled staff to obtain reports and to provide more cohesive case findings. In an effort to further enhance the information gathering process, MDAIR staff, in conjunction with the MDAIR Team, are developing mechanisms to allow medical providers and law enforcement to report methadone-related deaths and incidents electronically. Staff will also add analysis of methadone-related vehicle accidents, readmissions to treatment, receipt of medical records and other pertinent data elements to improve methadone treatment practices.

Methadone Source	No. of Decedents	%
Illicit	13	20%
Narcotic Treatment Provider	37	56%
Pain Management	4	6%
Primary Care Physician	4	6%
Other Private Physician	1	2%
Unknown	7	10%
Total number of decedents	66	

Table 1: Methadone Source by Provider
Source: Coroner/Medical Examiners, NTPs and Medical Personnel, 2014.

Pennsylvania has over 713 licensed facilities within the state, 71 of which are Narcotic Treatment Providers. In Pennsylvania, NTPs have the capacity to treat 23,500 patients. Of the cases reviewed by the MDAIR Team, liquid methadone dispensed by NTPs continues to be the primary source of methadone-related deaths and serious incidents in the state. This consistent reporting is attributed to Pennsylvania’s regulation that requires NTPs to report all unusual incidents to DDAP. The MDAIR Team has also seen an increase in illicit methadone use. Reports of illicit methadone use include cases where methadone was diverted or illegally obtained. The MDAIR staff was able to determine that this occurred in four of the 13 reported illicit cases. Nationally, according to the Researched Abuse, Dependence and Addiction Related Surveillance (RADARS) System, methadone is one of the most frequently diverted drugs. RADARS is further supported nationally by the poison center data, which states that “the drug most commonly involved in a death involving a prescription opioid is methadone and the most common formulation involved is a pill” (<http://www.globaladdiction.org/position-statement-2.php>). MDAIR staff confirmed that the pill formulation of methadone was involved in two deaths. It was also confirmed in two illicit (diverted) cases. During 2014, pain management, primary care physician and other private physician methadone-related deaths and incidents were underreported in the cases reviewed. NTPs are required by regulation to use liquid form of methadone, therefore, when pill formulation is found, it would not come from an NTP. As recommended by the MDAIR Team in 2013, DDAP will spearhead collaboration with the medical community to provide awareness regarding the MDAIR Act and encourage reporting when death or incidents occur.

State Composition

In 2014, Pennsylvania was comprised of approximately 12,787,209 residents, of which, at least 2,489 experienced fatal drug overdoses. In 2013, state census reports indicate that 21.3% of persons were under the age of 18, 16.4% were over the age of 65, and 51.1% were female. Additionally, 83% of state residents were Caucasian, 11.5% were Black/African-American, 0.3% were American Indian, 3.1% were Asian, and 6.3% were Hispanic. The MDAIR staff tracked the county of death and residence, race, sex and marital status of those who were impacted by a methadone-related death or incident reviewed by the Team. Below are the results of the data collected regarding cases that were presented to the Team.

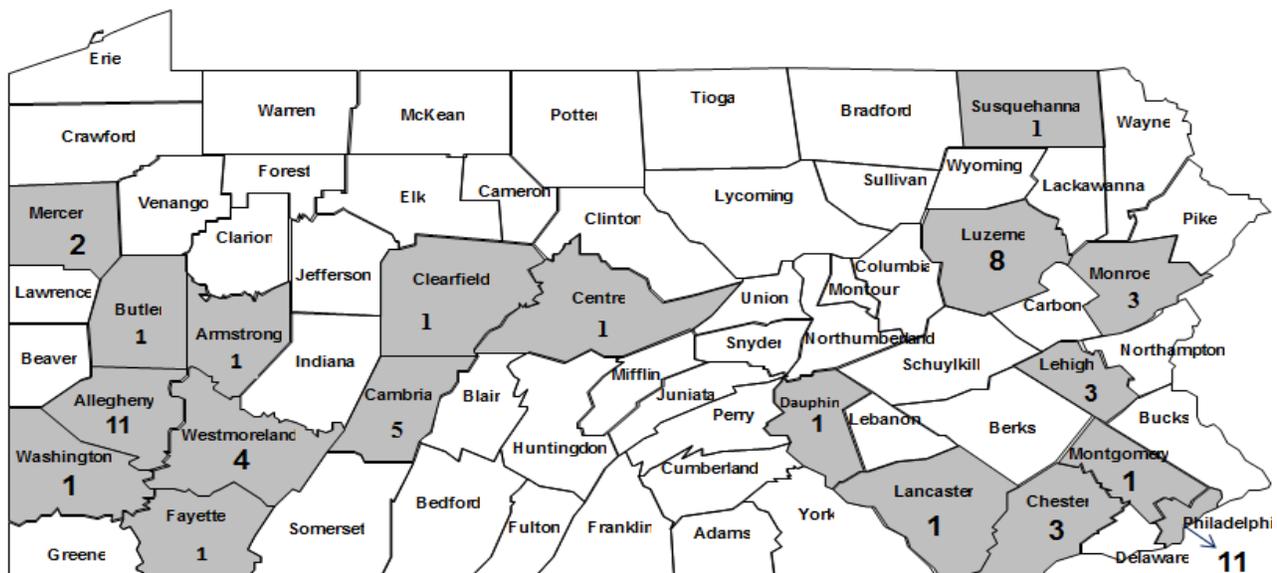


Figure 4: The map reflects Team reviewed methadone-related deaths.
Source: Coroners/Medical Examiners, 2014

The map above highlights the counties that were impacted by methadone-related deaths. The Team reviewed deaths in 20 of Pennsylvania’s 67 counties. The coroner’s drug death report was utilized to gather this data. DDAP received reports from 35 of the 67 counties. The greatest number of deaths reviewed by the Team occurred in Allegheny (11), Philadelphia (11), Luzerne (8) and Cambria (5) counties.

	Illicit	NTP	Pain Management	Primary Care Physician	Private Physician (Non-Primary Care)	Unknown
Allegheny	2	6	1	0	1	1
Philadelphia	0	9	0	0	0	2
Luzerne	2	3	1	1	0	1
Cambria	1	3	0	0	0	1

Table 2: Methadone Source by County.
Source: Coroners/Medical Examiners, 2014

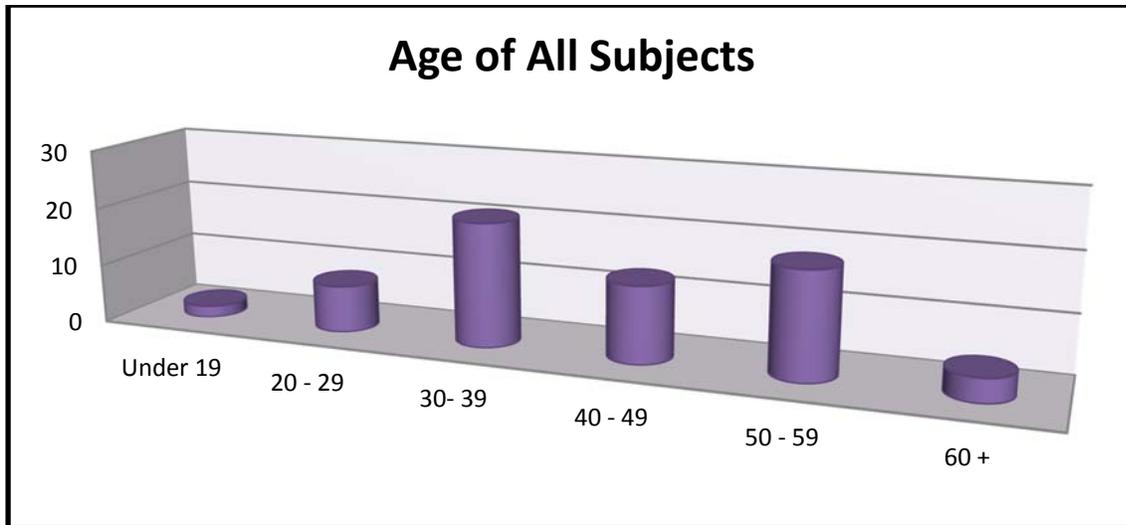


Figure 6: The average age of those impacted by methadone-related deaths and incidents was 41 years old. Source: NTPs and Coroners/Medical Examiners, 2014.

Age of Subjects	Male	Female	Total	%
Under 19	1	1	2	3%
20 - 29	6	2	8	12%
30 - 39	11	10	21	32%
40 - 49	8	5	13	20%
50 - 59	12	6	18	27%
60 +	2	2	4	6%
Total	40	26	66	

Table 3: Number of subjects by age
Source: NTPs and Coroner/Medical Examiners, 2014

“Pennsylvania is the fourth ‘oldest’ state in the nation, with nearly 2.7 million individuals aged 60 and older and more than 300,000 individuals aged 85 and older” (PA Department of Aging State Plan, 2). Residents that are “between the ages of 45 and 59 currently make up 22.2 percent of the state’s population, or approximately 2.8 million people” (PA Department of Aging State Plan, 8). In the 2010, the median age for Pennsylvania residents was 39.9.

The average age of those involved in cases received by MDAIR who were impacted by a methadone-related death or incident was 41 years old. Data collected via the coroner’s drug death report, MDAIR Treatment Provider form and unusual incident report indicates that deaths occurred more frequently amongst those who were age 30 to 39 years old. Nationally, “prescription opioid-related overdoses currently represent the second leading cause of injury-related death in the U.S. and the leading cause of death for 35-54 year olds” (Unick et al., 2013).

According to the Centers for Disease Control and Prevention (CDC), “adult men and women have roughly similar rates of nonmedical use of prescription drugs, although studies suggest that women are more likely than men to be prescribed prescription drugs, particularly narcotics and anti-anxiety drugs. Prescription pain medication overdoses are increasing among women. Although men are still more likely to die of

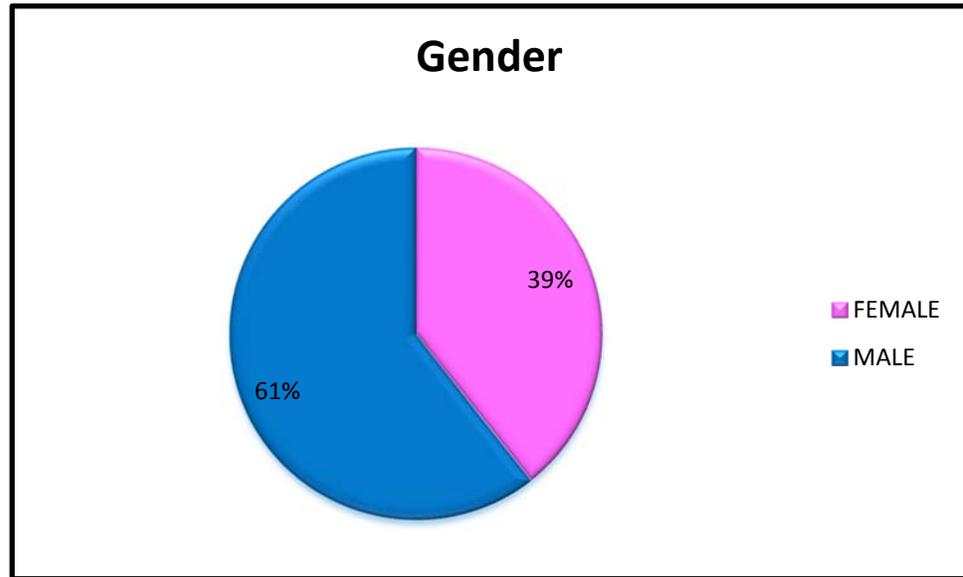


Figure 7: Percentage of males and females impacted by methadone-related deaths and incidents
 Source: Coroner/Medical Examiners, NTPs, Medical Personnel and DDAP, 2014.

prescription painkiller overdoses (more than 10,000 deaths in 2010), the gap between men and women is closing” (CDC, 2013). “Almost one-third of prescription painkiller overdose deaths involve methadone. Most experts now recognize that the rise in overdose deaths has occurred in conjunction with an increase in the number of physicians who are prescribing methadone for pain management” (CDC, 2012). Consistent with the national average, men were more greatly impacted by methadone-related deaths or incidents, as 40 or 61%, of cases reviewed involved men. More specifically, men who were age 50 - 59 were more likely to experience a methadone-related death or incident. The rate of impact for women was also similar to the national average as 26, or 39%, of women were involved in this study.

Race/Ethnicity Distribution for all Subjects

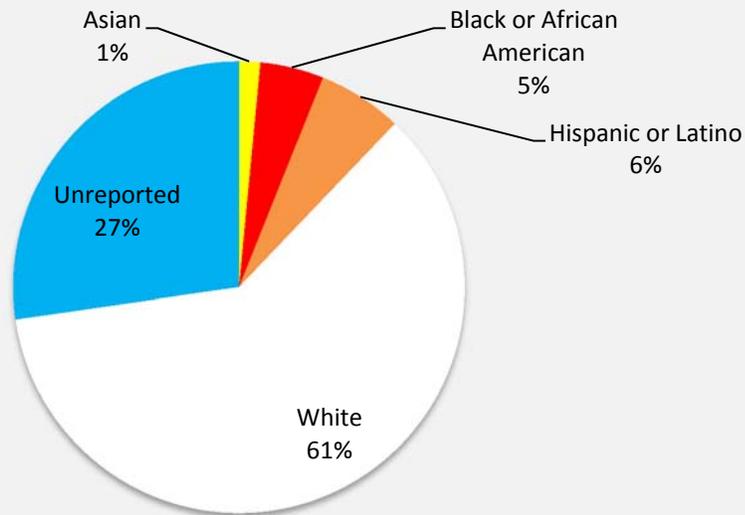


Figure 8: Percentage of deaths and incident by race/ethnicity

Source: Coroner/Medical Examiners, NTPs and Medical Personnel, 2014.

RACE/Ethnicity	Count of Race	Marital Status						Unknown
			Single	Married	Divorced	Separated	Widowed	
Asian	1							1
Black/African American	3		2	1				
Hispanic/Latino	4		1	1	1			1
White	40		12	7	4	3	3	11
Unreported	18		1					17

Table 4: The number of subjects by race/ethnicity and marital status

Source: Coroner/Medical Examiners, NTPs and Medical Personnel, 2014.

Reviewed by the MDAIR Team, midway through the 2014 calendar year, the MDAIR staff modified its data collection forms to include race and marital status. Utilizing the available information, the MDAIR Team was able to conclude that 61% of case subjects were Caucasian. African-Americans and Hispanic/Latino-Americans comprised 5% and 6% respectively. Data analysis also revealed that MDAIR subjects were more likely to be single. The marital status was unknown for 30 subjects.

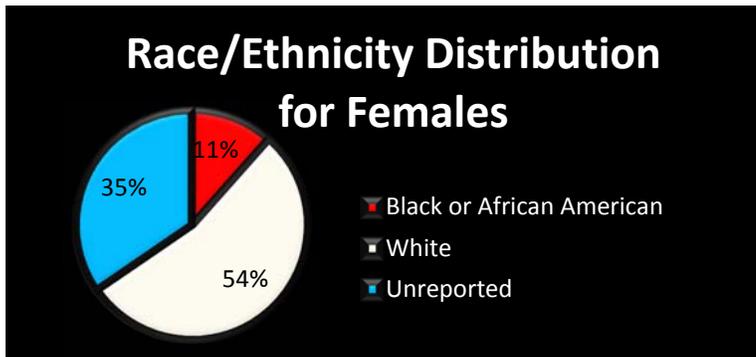


Figure 9: Percentage of deaths and incidents by race/ethnicity for females
 Source: Coroner/Medical Examiners, NTPs, and Medical Personnel, 2014.

FEMALE	Count Of Race/Ethnicity
Black or African American	3
White	14
Asian	0
Hispanic or Latino	0
Unreported	9

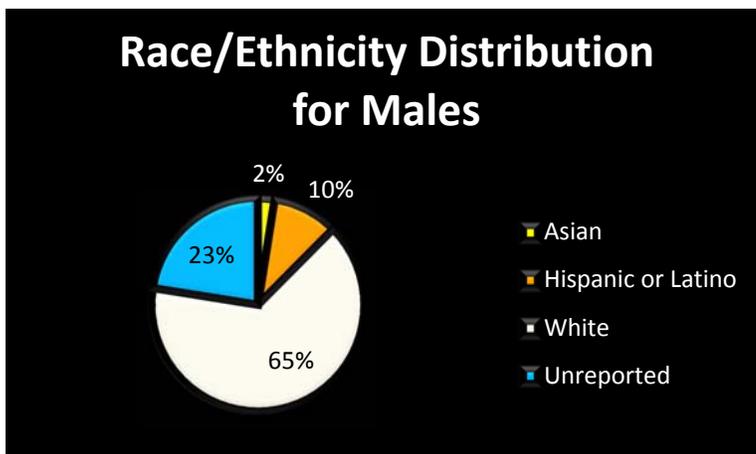


Figure 10: Percentage of deaths and incidents by race/ethnicity for males
 Source: Coroner/Medical Examiners, NTPs and Medical Personnel, 2014.

MALE	Count Of Race/Ethnicity
Asian	1
Hispanic or Latino	4
White	26
Black or African American	0
Unreported	9

Of all Team reviewed cases, Caucasian females are more likely to be impacted by a methadone-related death and/or incident. Twenty-three percent of this population was single (see additional information below in figures 11 & 12). Of the cases reviewed by the MDAIR Team, no Hispanic or Asian females were case subjects. The MDAIR Team’s selection process for review does not represent a bias or any criteria that would exclude Hispanic or Asian females. However, there were three African-American females who were impacted by a methadone-related death/incident. Two of these women were single and one was married (see additional information below).

Sixty-five percent of the cases reviewed by the MDAIR Team involved Caucasian males. Twelve, or 30%, of these males were single (see additional information below). The Team noted the absence of African-American males in the cases reviewed. Its selection process for review does not represent a bias or any criteria that would exclude Black/African American males. Of the cases reviewed, Hispanic and Asian males accounted for 10% and 2%, respectively. The race was unreported in nine cases.

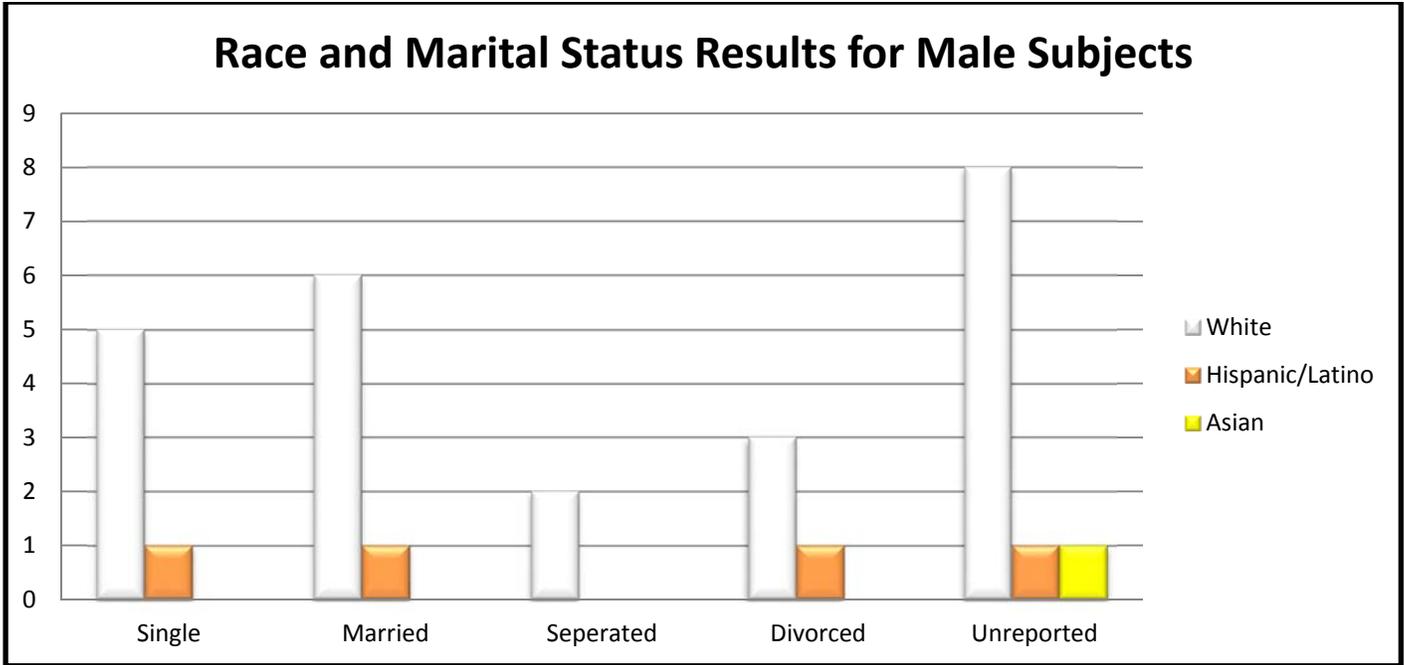


Figure 11: The reported race/ethnicity and marital status of male subjects.
 Source: Coroner/Medical Examiners, NTPs and Medical Personnel, 2014.

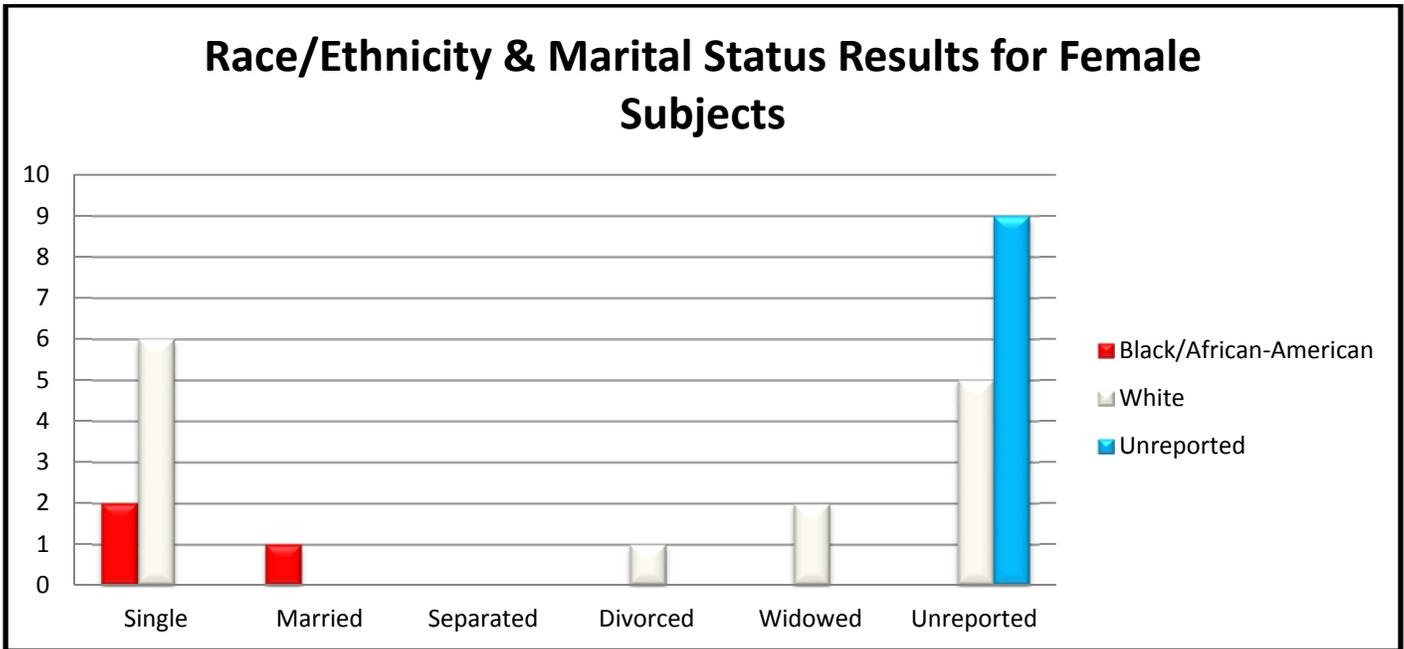


Figure 12: The reported race/ethnicity and marital status of female subjects.
 Source: Coroner/Medical Examiners, NTPs, Medical Personnel and DDAP, 2014

Correlation Between the Source of the Methadone and the Length of Usage

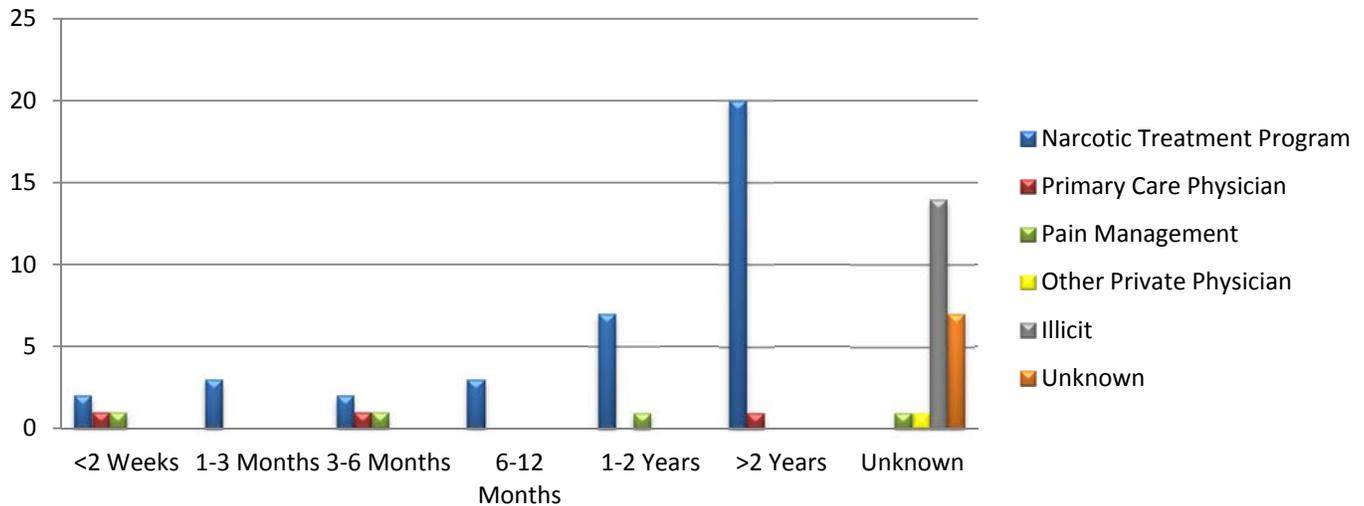


Figure 13: Number of methadone-related deaths and the length of time the decedent received methadone
 Source: Coroner/Medical Examiners, NTPs and Medical Personnel, 2014.

Of the cases reviewed, the greatest number of reported methadone-related deaths and/or incidents has involved NTP patients who were receiving treatment two or more years. The Team’s investigation revealed that these cases lacked physician coordination and referrals to higher levels of care when warranted. Further, these cases were also likely to involve patients who exhibited poor attendance and increased physical and behavioral health issues, as nine of the 21 persons that died after two or more years had benzodiazepines in their blood and/or urine and eight were identified as having anti-depressants in their system.

Analysis:

- During the 2014 reporting period, the number of cases that involved diverted methadone has increased.
- Nineteen percent of the cases reviewed involved illicit use of methadone. In these cases, it was unclear how long individuals had been using methadone.
- Six persons died during the induction phase of treatment at NTPs. (The induction phase is the initial stage of methadone treatment to determine the level of methadone needed by the patient to attain stabilization/promote recovery. There is no consensus, concerning the length of the induction phase. However, it is generally viewed as being within the first three months of treatment.)
- One person died within two weeks of use while being treated by a primary care physician.
- Three persons died while being treated by a pain management physician.
- Those who ingest methadone from an unknown source are at a greater risk of a fatal overdose.

Male Decedents and their Length of Methadone Use

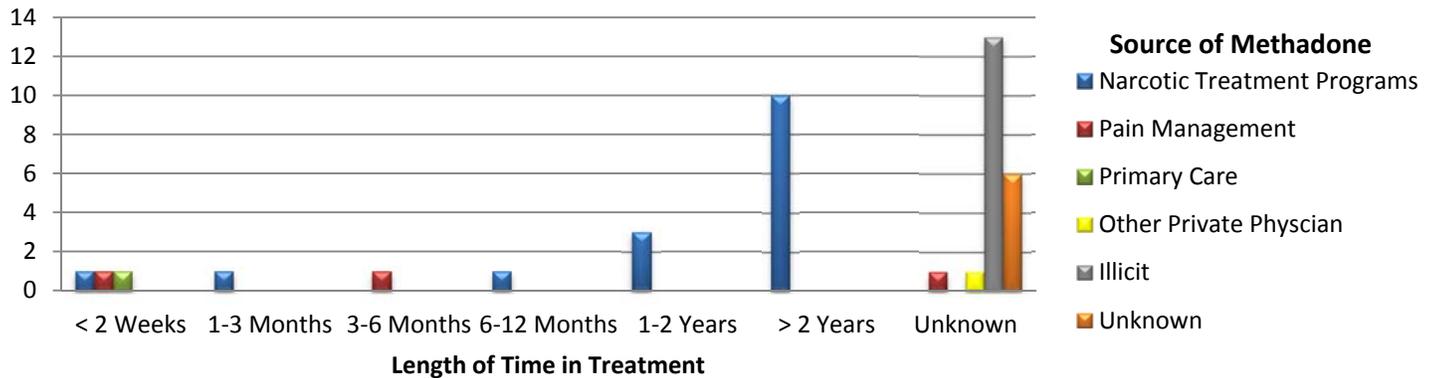


Figure 14: Number of male methadone-related deaths and the length of time the decedent received methadone. Source: Coroner/Medical Examiners, NTPs and Medical Personnel, 2014

According to the results of the cases reviewed, men who obtained methadone illicitly were more likely to experience a fatal overdose. Similar results were observed for those who received treatment services from a NTP, as 25% of the men who received treatment for two or more years died with methadone identified as a cause or contributing factor. Further, four men died during the induction phase. Additionally, DDAP staff was unable to determine the source and length of time on methadone for 15% of the males decedents reviewed.

Female Decedents and their Length of Methadone Use

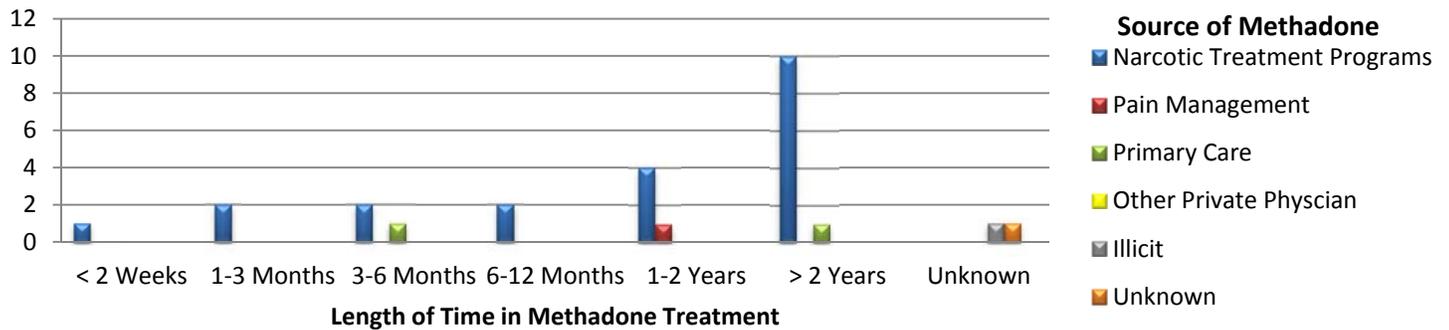


Figure 15: Number of female methadone-related deaths and the length of time the decedent received methadone. Source: Coroner/Medical Examiners, NTPs and Medical Personnel, 2014

The outcomes for women who were reviewed during this study varied slightly. The results indicate that women are more likely to be prescribed methadone by an NTP physician. Among the cases that were reviewed by the MDAIR Team, the results appear to indicate that fewer women are taking methadone illicitly; however, the Team cannot say definitively that these women were not getting methadone from other sources as well as the NTP. In any event, women experienced a lower rate of death during the induction phase.

Pharmacological Impact of Methadone-Related Deaths

The graph below reflects the occurrence of each substance that was identified in the toxicology report of decedents reviewed for this study. This information was assembled and provided by Pennsylvania coroners/medical examiners via the Coroner's Drug Death Report. The form indicates the cause and manner of death and the toxicology results of the blood and urine screens. Most results are confirmed by utilizing Gas Chromatography Mass Spectrometry (GC/MS).

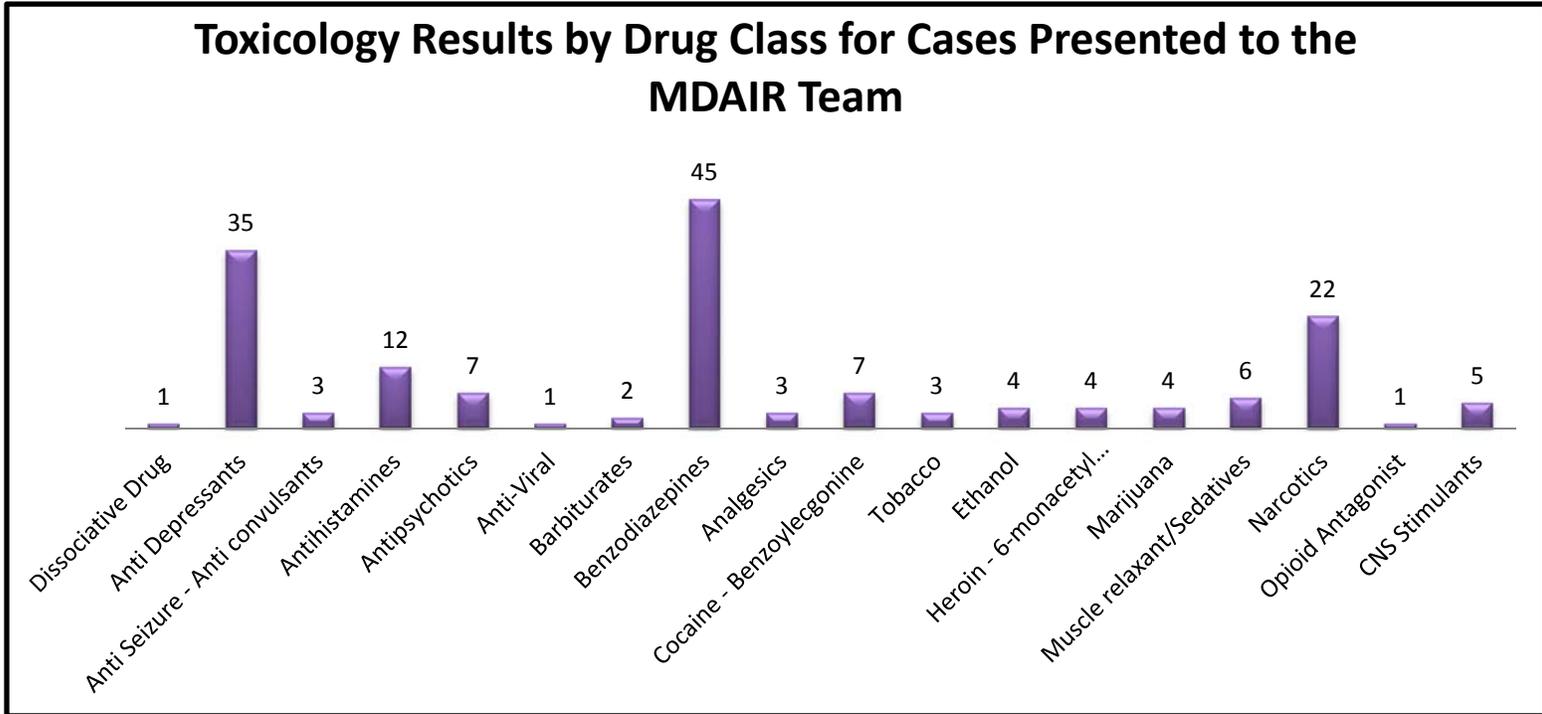


Figure 16: Toxicology results by drug class for cases presented to the MDAIR Team
Source: Coroner/Medical Examiners, NTPs and Medical Personnel, 2014

The MDAIR Team reviewed 61 fatal methadone-related cases. The toxicology results reflect high incidence of benzodiazepine and anti-depressant use among cases. More specifically, the reports indicate that 45 out of the 60 cases had benzodiazepines in their blood or urine at the time of death. The results also indicate that 35 of 60 cases had anti-depressants in their urine and/or blood at the time of their death. Further, the results indicate that narcotics were also prevalent at the time of death, as 22 of 60 cases were found with these substances in their blood or urine screens.

Note: Sixty-one fatal cases were reviewed by the MDAIR Team. In one instance, an unusual incident report and MDAIR treatment provider form confirmed that the case was a NTP patient. However, the hospital's toxicology report did not confirm whether methadone was in the blood or urine at the time of death. Therefore, this case is not recorded in the total reflected above.

The chart below further delineates the pathology results of the Coroner’s Drug Death reports. It categorizes the number of deaths that involved methadone and the most prevalent substances identified in this study. These occurrences are not all inclusive as the use of multiple substances may have been the cause or contributing factor to the individual’s death.

Medications Identified in Toxicology Reports					
<u>Benzodiazepines</u>	Number of Deaths	<u>Anti-Depressants</u>	Number of Deaths	<u>Narcotics</u>	Number of Deaths
Alprazolam (Xanax)	21	Citalopram Hydro bromide (Celexa)	3	Fentanyl	1
Clonazepam (Klonopin)	8	Fluoxetine Hydrochloride (Prozac)	3	Codeine	3
Diazepam (Valium)	6	Bupropion Hydrochloride (Wellbutrin)	4	Hydrocodone	2
Lorazepam (Ativan)	5	Amitriptyline Hydrochloride (Elavil)	3	Buprenorphine	1
Oxazepam (Serax)	2	Nortriptyline Hydrochloride (Pamelor)	2	Oxymorphone	2
Temazepam (Restoril)	3	Venlafaxine Hydrochloride (Effexor)	5	Oxycodone	6
		Trazodone Hydrochloride (Desiril)	5	Morphine	7
		Sertraline Hydrochloride (Zoloft)	7		
		Paroxetine Hydrochloride (Paxil)	1		
		Mirtazapine (Remeron)	2		
Total # of Deaths	45	Total # of Deaths	35	Total # of Deaths	22

Table 5: Number of medications identified in decedent toxicology results
Source: Coroner/Medical Examiners and Medical Personnel, 2014.

In addition to the medications named above, the following illicit substances were also named in the toxicology results. Cocaine was present in seven instances of death. Heroin was present in four instances and marijuana was also noted in four cases as well. While not illicit, alcohol was

found in the toxicology results of four decedents. Persons with prescription medications in their blood and/or urine were least likely to have illicit substances identified in their toxicology results.

By comparison, it appears that the illicit use of substances is less likely to occur in methadone-related deaths and incidents. However, the MDAIR Team acknowledges that any substance obtained without a valid prescription would be considered an illicit substance. It is unclear whether or not all of the substances named above were obtained from a licensed practitioner.

Number of Substances Identified in Toxicology Reports

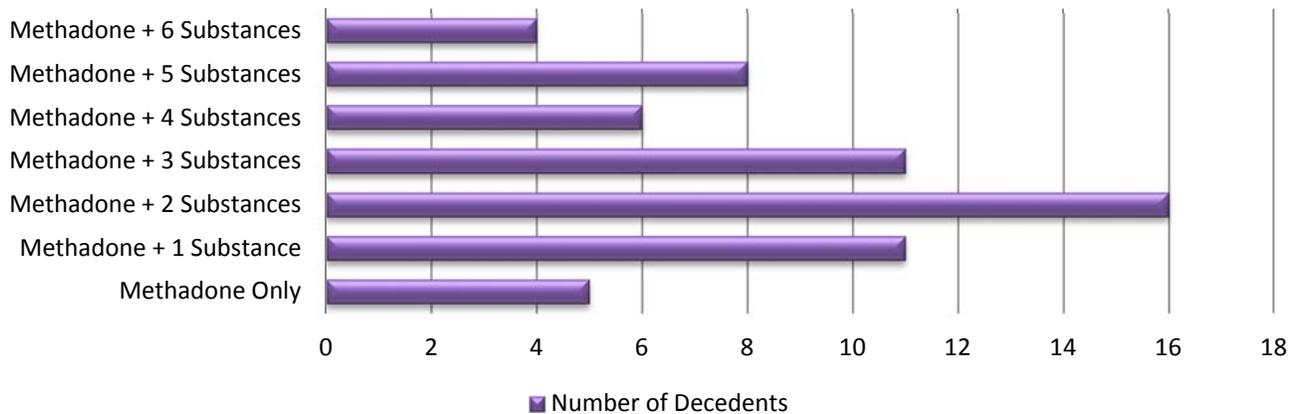


Figure 17: Number of substances identified in toxicology reports performed by medical personnel and coroners/medical examiners.
Source: Coroner/Medical Examiners, NTPs and Medical Personnel, 2014

The toxicology results of the coroner’s drug death report and medical records delineate each substance that was identified at the time of death. These results were combined for analysis of the number of substances involved in fatal methadone-related drug overdoses. Analysis of the toxicology results revealed that cases were more likely to have three substances in their urine and/or blood at the time of death. The common substance involved in these deaths was methadone. Eleven cases had methadone and one other substance identified in their toxicology results. Another 11 cases had four substances identified in their toxicology results. Four cases had an alarming seven substances identified in their toxicology results. Three out of four of these cases had alprazolam in their blood and/or urine at the time of death. Similar results were observed for those cases that died with six substances in their system as seven of the eight cases also had alprazolam identified in their blood and/or urine at the time of death.

“The World Health Organization reports that drug interactions are a leading cause of morbidity and mortality. This finding extends to medications used in the treatment of substance use disorders and pharmacotherapies for treatment of medical or mental illness, as well as for abused substances – including alcohol, licit and illicit substances” (McCance-Katz et al., 1). While the number of substances identified in an individual’s blood or urine results is not indicative of potential overdose risks or fatality; it draws attention to the lethality of drug interactions.

“Pharmacodynamic interactions can result when two or more drugs with the capability of producing similar pharmacological effects in an individual are ingested in the same time frame” (McCance-Katz et al., 2). This can be seen in common over the counter medications. St. John’s Wort is known to have an adverse interaction with methadone as it increases metabolism and elimination of methadone (McCance-Katz et al., 7). Similarly, diphenhydramine (Benadryl), a common antihistamine can also impact the pharmacokinetic or pharmacodynamic interaction with methadone and may result in adverse effects.

Methadone + Benzodiazepines

It is reported that one-third of all methadone patients are co-prescribed benzodiazepines. Co-prescription of benzodiazepines and methadone has become very common with research indicating that approximately 33% to 85% of those receiving methadone are also using benzodiazepines” (CCBH, 2012, Chen et al, 2011, Peles, et al., 2014, Vogel et al., 2013, Forza et al., 1998, Schreiber, 2008, Eiroa-Orosa et al., 2010). Numerous reports indicate that the co-abuse of opioids and benzodiazepines is common; however, it is the consensus of the MDAIR Team that the co-abuse of these substances can lead to euphoria. Little conclusive research has been done to thoroughly examine the interaction between these medications. SAMSHA’s *Combining Benzodiazepines with Other Substances Raises Risks* article states, “thirty-two percent of hospital emergency department visits involving benzodiazepines resulted in serious medical outcomes such as hospitalization (or in rare cases death)” (SAMSHA, 2014). This increase in hospitalizations is indicative of the prevalence of this issue.

“Benzodiazepines are highly associated with overdose fatalities when combined with opioids” (SAMHSA, Federal Guideline for Opioid Treatment Programs, 38). Whether used separately or concurrently, they are both capable of altering respiratory frequency. “Opioid agonist treatment also has overdose risk, particularly full agonists like methadone. A recent retrospective analysis of drugs interactions and adverse events among methadone patients found significant evidence of additive Central Nervous System (CNS) and respiratory depression when methadone was combined with benzodiazepines.

Subsequently, benzodiazepines have been identified in 40% - 80% of methadone-related deaths and up to 80% of buprenorphine-related deaths” (Jones et al., 8).

<u>Substance(s)</u>	Total Number of Deaths
Methadone Only	5
Methadone/Benzodiazepines	7
Methadone/Benzodiazepines/Other Drugs	23
Methadone/Other Drugs	24
Methadone/Alcohol	1

Table 6: Toxicology results of MDAIR cases reviewed
Source: Coroner/Medical Examiners, NTPs, Medical Personnel and DDAP, 2014

MDAIR’s data is consistent with this study as 45% of deaths and incidents in 2014 involved benzodiazepines. In the neighboring community of Baltimore, Maryland the results were also similar. “Forty-seven percent of the respondents had a history of benzodiazepine use, and 39.8% used BZD without a prescription. Half of the benzodiazepine users (54%) started using benzodiazepines after entering the methadone program, and 61% of previous benzodiazepine users reported increased or resumed use after entering methadone program” (Chen et al., 2014). These statistics are startling and they underline the risks associated with combined opioid and benzodiazepine use.

The concurrent use of methadone and benzodiazepines is one of the most controversial issues facing methadone prescribers and providers. In an attempt to address the issue, greater emphasis has been placed on patient care and coordination with co-prescribing physicians. Opioid agonist treatment prescribers are proceeding with caution and monitoring patient response to these

medications. One of the difficulties of monitoring a patient’s intake resides with the metabolism rate of methadone as it metabolizes in each person differently. “Few studies do suggest that benzodiazepines and opioids alter the pharmacokinetic effects of one another, this interaction may have limited clinical significance” (Jones et. al., 4). However, additional research must be performed in order to determine its true implication.

In an attempt to bring clarity to this issue, in 2013, the Institute for Research, Evaluation and Training in Addictions (IRETA) with support from Community Care Behavioral Health Organization conducted a study. *Management of Benzodiazepines in Medication-Assisted Treatment* indicates that “CNS (central nervous system) depressant use is not an absolute contraindication for the use of either methadone or buprenorphine in MAT, but it is a reason for caution because of potential respiratory depression” (IRETA 2013, 17). The study further states that, “uncontrolled use of benzodiazepines in a person presenting for MAT with methadone or buprenorphine is contraindicated. It presents extremely high risk of adverse drug reaction involving overdose and/or death

during the induction process” (IRETA 2013, 17). The study also warns against the concurrent use of alprazolam as it states, “avoid prescribing alprazolam to individuals receiving methadone” (IRETA 2013, 19). A similar warning was made by Rogers et al., (1997) and Lintzeris et al., (2007) regarding the use of diazepam as it can be associated with performance impairment (SAMHSA, 2012). The MDAIR Team’s review of methadone related deaths and the concurrent use of benzodiazepines exhibit similar results. Seven individuals died in 2014 after concurrent use of methadone and benzodiazepines. Twenty-three died after the concurrent use of methadone, benzodiazepines and other drugs. Twenty-four persons died after use of methadone and other drugs. Of those who consumed benzodiazepines, the most prevalent medication was alprazolam. Alprazolam was identified in the toxicology results for 31% of the decedents who were reviewed by the MDAIR Team.

Substance	Number of Deaths
Alprazolam	21
Clonazepam	8
Diazepam	6
Lorazepam	5
Oxazepam	2
Temazepam	3

Table 7: Benzodiazepines identified in MDAIR cases reviewed
Source: Coroner/Medical Examiners, NTPs and Medical Personnel, 2014

Methadone-Related Car Crashes in Pennsylvania

“Statewide, 2,773 drug-related vehicle crashes occurred in 2009, with 108 fatalities. By 2013, those numbers had risen to 3,284 drug-related vehicle crashes, with 147 fatalities” (Crompton, 2015). According to the Pennsylvania Department of Transportation, police made more than 17,000 drug-related driving arrests across the state last year. Statewide increases are consistent with national increases of drugged driving as the National Highway Traffic Safety Administration (NHTSA) found that about “16% of drivers were drugged in 2007 compared with 22% in 2014” (Crompton, 2015). In 2014, the Pennsylvania State Police Drug Evaluation and Classification Program and NHTSA indicated that of 1,227 drug related crashes, 55 cases, or 5%, of the victims had methadone in their systems. Furthermore, 330 cases, or 27%, had benzodiazepines (Xanax, Klonopin, Ambien and Valium) and 257 cases, or 21%, had opioids (heroin, oxycodone, oxymorphone) in their systems at the time of crash.

The MDAIR Team reviewed three methadone-related crashes during 2014. All three incidents involved NTP patients. Each was actively engaged in treatment for one to two years. Two of the crashes were fatal for the drivers. The third fatality involved an NTP patient who was involved in a head-on collision shortly after dosing which resulted in the death of the other driver. In order for these cases to be reviewed by the MDAIR Team and investigative staff, a coroner or medical professional must indicate that methadone was a cause or contributing factor to the death. A methadone-related death is “a death where methadone was a primary or secondary cause of death or may have been a contributing factor” (Act 148 of 2012).

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2014 MDAIR Recommendations

A. General Recommendations

1. In 2013, the MDAIR Team reviewed cases where a forensic autopsy was not performed, though a forensic toxicology was completed. Performing both forensic autopsies and toxicology screenings are important in determining cause and manner of death; however, performing both are a significant cost to counties which they often cannot afford due to budget restraints. At that time, the MDAIR Team supported the Pennsylvania State Coroners Association's intention to request legislation to change the statutes to enhance the quantitative and qualitative analyses by the coroner's offices. The MDAIR Team continues to support this recommendation. (Recommendation made on 05/27/2014)
2. There shall be costs imposed on narcotic treatment facilities, including reasonable fines for those facilities that receive second or third provisional licenses. These reasonable costs will be used to offset costs to the Department of Drug and Alcohol Programs. (Recommendation made on 05/27/2014)
3. NTPs shall have quality improvement teams that review deaths and incidents and develop improvement measures to reduce or eliminate such occurrences. (Recommendation made on 06/17/2014)
4. When a patient presents with anxiety or depression, they shall be screened prior to being dosed with methadone, as substance abusers often experience anxiety and depression as a result of cessation of substance use. (Recommendation made on 09/30/2014)
5. NTPs shall be appropriately compensated across the payor system for all increased treatment activities and for any suggested improvements in care across systems. (Recommendation made on 11/03/2014)
6. At the beginning of and throughout treatment, NTP providers shall utilize or access the PDMP and throughout treatment as clinically indicated. (Recommendation made on 05/27/2014)
7. The providers of Continuing Medical Education (CMEs) shall increase the availability of training specific to methadone prescribing. (Recommendation made on 06/17/2014)
8. To determine whether methadone is a contributing factor in an incident or death, any individual known or believed to be a methadone consumer should (by medical professional) ascertain the level of methadone and all other controlled substances in the blood and/or urine. (Recommendation made on 06/17/2014)

B. Recommendations for Narcotic Treatment Providers

1. NTPs and other methadone prescribers shall coordinate care with other medical and behavioral health care providers. (Recommendation made on 06/17/2014)
2. New patients will meet for their first counseling session before or within two business days of admission. (Recommendation made on 10/20/2014)
3. NTPs should be encouraged to conduct family counseling sessions when clinically appropriate and private/public health insurers should reimburse for these services. (Recommendation made on 11/03/2014)
4. Increase level of care, when clinically appropriate in instances such as: the patient is not responding to the treatment plan, repeatedly not showing up for counseling sessions, failing urine screenings for extended periods of time or when a facility is considering terminating treatment for other reasons. The NTP shall facilitate case coordination with a higher level of care provider, ensuring that the client has assistance in seeking funding from Medical Assistance or other funding to access the proper level of care, with no break in treatment. (Recommendation made on 05/27/2014)
5. DDAP shall facilitate the inclusion of a mandated contact by the treatment program to a family member, friend or other responsible person to report on the status of the client within the first 48-96 hours of the client's initial dose. (Recommendation made on 05/27/2014)
6. Patients must sign a consent to allow the methadone provider to have access to his/her physical and/or behavioral health provider records. If the patient is known to be taking benzodiazepines and refuses to sign the release, the methadone provider will refuse to dose the patient, but will offer the client a drug-free treatment option. In addition, the methadone regulations should be revised to indicate that refusal to sign a consent in this instance may be a justification for discharge. (Recommendation made on 05/27/2014)
7. If a patient relapses there should be an increase in the intensity of therapeutic interventions provided. (Recommendation made on 06/17/2014)
8. NTPs should develop and implement a reasonable written standard on call-backs for take-home methadone patients. (Recommendation made on 06/17/2014)

C. **Recommendations for Methadone Prescribers**

1. There shall be greater training and ongoing monitoring of medical providers who prescribe methadone to ensure that they understand the interactions with methadone and other drugs of multiple drug prescriptions. (Recommendation made on 05/27/2014)
2. Methadone prescribers should be compensated for completing, when clinically appropriate, regular urine and/or blood levels or peak and trough tests. This should be covered by all private and public health insurance formularies (e.g. Medicaid, Medicare.) (Recommendation made on 05/27/2014)
3. In addition to the general UDS and benzodiazepine screen, the NTP program shall at a minimum, semi-annually utilize special laboratory tests to determine which kind of benzodiazepine drugs are being taken by benzodiazepine-positive patients, illicit or prescribed.
4. Regular random urine screening is a critical part of ongoing treatment with opioids, to ensure safe use of the prescribed medication(s). A urine drug screen should be obtained at baseline before starting chronic opioid therapy, then at least quarterly at random intervals, during ongoing treatment. More frequent screening should be made in patients. The results of the urine drug screen should be documented in the prescribing provider's note, and chronic opioid therapy should be adjusted as appropriate, based on these results. Appropriate referrals, including referrals for psychiatric, psychological, or substance use disorder evaluation and treatment, should be made when indicated who appear to be at risk of (i) having a substance use disorder (ii) or at risk for diverting. (Recommendation made on 11/03/2014)
5. Dosage increase for clinic patients who have reached a therapeutic dose must be reviewed by the treatment team for consideration of therapeutic intervention. (Recommendation made on 11/03/2014)
6. Prior to prescribing methadone for pain, physicians must complete a blood and/or urine screen. (Recommendation made on 05/27/2014)

D. **Amended Recommendation**

1. Patients receiving methadone treatment should receive an initial dose ≤ 30 mgs. During the first seven days of treatment, the patient's dose should not be increased more than 10 mgs per occurrence on the 4th and 7th days. A physician must be present to adjust the patient's dose during the induction phase. Clinical observation and physician discretion should inform ongoing patient care. (Recommendation made on 06/17/2014)

APPENDIX A

MDAIR ACT (Act 148 of 2012)

METHADONE DEATH AND INCIDENT REVIEW ACT - ENACTMENT Act of Oct. 24, 2012, P.L. 1198, No. 148 Cl. 35

An Act

Establishing the Methadone Death and Incident Review Team and providing for its powers and duties; and imposing a penalty.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

Section 1. Short title.

This act shall be known and may be cited as the Methadone Death and Incident Review Act.

Section 2. Definitions.

The following words and phrases when used in this act shall have the meanings given to them in this section unless the context clearly indicates otherwise:

"Department." The Department of Drug and Alcohol Programs of the Commonwealth.

"Methadone-related death." A death where methadone was:

- (1) a primary or secondary cause of death; or
- (2) may have been a contributing factor.

"Methadone-related incident." A situation where methadone may be a contributing factor which:

- (1) does not involve a fatality; and
- (2) involves:
 - (i) a serious injury; or
 - (ii) unreasonable risk of death or serious injury.

"Narcotic treatment program." A program licensed and approved by the Department of Drug and Alcohol Programs for chronic opioid drug users that administers or dispenses agents under a narcotic treatment physician's order, either for detoxification purposes or for maintenance.

"Secretary." The Secretary of Drug and Alcohol Programs of the Commonwealth.

"Team." The Methadone Death and Incident Review Team established under section 3.

Section 3. Establishment of Methadone Death and Incident Review Team.

(a) Team established.--The department shall establish a Methadone Death and Incident Review Team and conduct a review and shall examine the circumstances surrounding methadone-related deaths and methadone-related incidents in this Commonwealth for the purpose of promoting safety, reducing methadone-related deaths and methadone-related incidents and improving treatment practices.

(b) Composition.--The team shall consist of the following individuals:

- (1) The secretary or a designee, who shall serve as the chairperson of the team.
- (2) The Director of the Bureau of Drug and Alcohol Programs.
- (3) The following individuals appointed by the secretary:

(i) A representative from narcotic treatment programs as defined in 28 Pa. Code § 701.1 (relating to definitions).

(ii) A representative from a licensed drug and alcohol addiction treatment program that is not defined as a narcotic treatment program.

(iii) A representative from law enforcement recommended by a Statewide association representing members of law enforcement.

(iv) A representative from the medical community recommended by a Statewide association representing physicians.

(v) A district attorney recommended by a Statewide association representing district attorneys.

(vi) A coroner or medical examiner recommended by a Statewide association representing county coroners and medical examiners.

(vii) A member of the public.

(viii) A patient or family advocate.

(c) Initial meeting.--The initial meeting of the team shall take place within 90 days of the effective date of this section. During this initial meeting, the team shall develop a schedule for its work and reports.

(d) Expenses.--Members of the team shall not receive compensation but shall be reimbursed for necessary travel and other reasonable expenses incurred in connection with the performance of their duties as members. If possible, the team shall utilize the services and expertise of existing personnel and staff of State government.

Section 4. Team duties.

The team shall:

(1) Review each death where methadone was either the primary or a secondary cause of death and review methadone-related incidents.

(2) Determine the role that methadone played in each death and methadone-related incident.

(3) Communicate concerns to regulators and facilitate communication within the health care and legal systems about issues that could threaten health and public safety.

(4) Develop best practices to prevent future methadone-related deaths and methadone-related incidents. The best practices shall be:

(i) Promulgated by the department as regulations.

(ii) Posted on the department's Internet website.

(5) Collect and store data on the number of methadone-related deaths and methadone-related incidents and provide a brief description of each death and incident. The aggregate statistics shall be posted on the department's Internet website. The team may collect and store data concerning deaths and incidents related to other drugs used in opioid treatment.

(6) Develop a form for the submission of methadone-related deaths and methadone-related incidents to the team by any concerned party.

(7) Develop, in consultation with a Statewide association representing county coroners and medical examiners, a model form for county coroners and medical examiners to use to report and transmit information regarding methadone-related deaths to the team. The team and the Statewide association representing county coroners and medical examiners shall collaborate to ensure that all methadone-related deaths are, to the fullest extent possible, identified by coroners and medical examiners.

(8) Develop and implement any other strategies that the team identifies to ensure that the most complete collection of methadone-related death and methadone-related serious incident cases reasonably possible is created.

(9) Prepare an annual report that shall be posted on the department's Internet website and distributed to the chairman and minority chairman of the Judiciary Committee of the Senate, the chairman and minority chairman

of the Public Health and Welfare Committee of the Senate, the chairman and minority chairman of the Judiciary Committee of the House of Representatives and the chairman and minority chairman of the Human Services Committee of the House of Representatives. Each report shall:

(i) Provide public information regarding the number and causes of methadone-related deaths and methadone-related incidents.

(ii) Provide aggregate data on five-year trends on methadone-related deaths and methadone-related incidents when such information is available.

(iii) Make recommendations to prevent future methadone-related deaths, methadone-related incidents and abuse and set forth the department's plan for implementing the recommendations.

(iv) Recommend changes to statutes and regulations to decrease methadone-related deaths and methadone-related incidents.

(v) Provide a report on methadone-related deaths and methadone-related incidents and concerns regarding narcotic treatment programs.

(10) Develop and publish on the department's Internet website a list of meetings for each year.

Section 5. Duties of coroner and medical examiner.

A county coroner or medical examiner shall forward all methadone-related death cases to the team for review. The county coroner and medical examiner shall use the model form developed by the team to transmit the data.

Section 6. Review procedures.

The team may review the following information:

(1) Coroner's reports or postmortem examination records unless otherwise prohibited by Federal or State laws, regulations or court decisions.

(2) Death certificates and birth certificates.

(3) Law enforcement records and interviews with law enforcement officials as long as the release of such records will not jeopardize an ongoing criminal investigation or proceeding.

(4) Medical records from hospitals, other health care providers and narcotic treatment programs.

(5) Information and reports made available by the county children and youth agency in accordance with 23 Pa.C.S. Ch. 63 (relating to child protective services).

(6) Information made available by firefighters or emergency services personnel.

(7) Reports and records made available by the court to the extent permitted by law or court rule.

(8) EMS records.

(9) Traffic fatality reports.

(10) Narcotic treatment program incident reports.

(11) Narcotic treatment program licensure surveys from the program licensure division.

(12) Any other records necessary to conduct the review.

Section 7. Access to records.

(a) Juvenile records.--When deemed necessary for its review, the team may review and inspect all files and records of the court relating to a child pursuant to a proceeding under 42 Pa.C.S. Ch. 63 (relating to juvenile matters) in accordance with 42 Pa.C.S. § 6307 (relating to inspection of court files and records). This subsection shall not apply to files and records of the court subject to a child fatality or near fatality review pursuant to 23 Pa.C.S. Ch. 63 (relating to child protective services).

(b) Medical records.--Notwithstanding any other provision of law and consistent with the Health Insurance Portability and Accountability Act of 1996 (Public Law 104-191, 110 Stat. 1936) and 42 CFR Pt. 2 (relating to

confidentiality of alcohol and drug abuse patient records), health care facilities and health care providers shall provide medical records of an individual under review without the authorization of a person of interest to the team for purposes of review under this act.

(c) Other records.--Other records pertaining to the individual under review for the purposes of this act shall be open to inspection as permitted by law.

Section 8. Confidentiality.

(a) Maintenance.--The team shall maintain the confidentiality of any identifying information obtained relating to the death of an individual or adverse incidents regarding methadone, including the name of the individual, guardians, family members, caretakers or alleged or suspected perpetrators of abuse, neglect or a criminal act.

(b) Agreement.--Each member of the team and any person appearing before the team shall sign a confidentiality agreement applicable to all proceedings and reviews conducted by the team.

(c) Liability.--An individual or agency that in good faith provides information or records to the team shall not be subject to civil or criminal liability as a result of providing the information or record.

(d) Discovery.--The proceedings, deliberations and records of the team are privileged and confidential and shall not be subject to the act of February 14, 2008 (P.L.6, No.3), known as the Right-to-Know Law, discovery, subpoena or introduction into evidence in any civil or criminal action.

(e) Meetings.--Meetings of the team at which a specific death is discussed shall be closed to the public and shall not be subject to the provisions of 65 Pa.C.S. Ch. 7 (relating to open meetings).

(f) Attendance.--Nothing in this act shall prevent the team from allowing the attendance of a person with information relevant to a review at a methadone death and incident team review meeting.

(g) Penalty.--A person who violates the provisions of this section commits a misdemeanor of the third degree.

Section 9. Regulations.

The department shall promulgate regulations as necessary to carry out the purposes of this act.

Section 20. Effective date.

This act shall take effect in 90 days.

APPENDIX B

MDAIR 2013 RECOMMENDATIONS

MDAIR 2013 Recommendations

As a result of MDAIR Team meetings and the review of deaths and incidents involving methadone, the following recommendations were made. We recognize that these recommendations are based upon review of a relatively small number of cases; the MDAIR Team, after review of cases in 2014, may choose to modify some of these recommendations:

A. General Recommendations:

1. Mandatory toxicology screens shall be performed on deaths where methadone appears to have been involved. (Recommendation made on 4/1/13)
2. There shall be a centralized location where the coroners could submit the form. (Recommendation made on 4/1/13, accomplished and ongoing)
3. Physician participants of the MDAIR Team are encouraged to share an opinion on toxicology reports and to offer clinically appropriate recommendations. (Recommendation made on 5/27/14)
4. The Team reviewed cases where a forensic autopsy was not performed, though a forensic toxicology was completed. Performing both forensic autopsies and toxicology screenings are important in determining cause and manner of death; however, performing both creates a significant cost to counties which they cannot afford due to budget restraints. The MDAIR Team supports the Pennsylvania State Coroners Association's intended request for legislation to change the statutes to enhance the quantitative and qualitative analyses of the coroner's offices. (Recommendation made on 9/9/13)
5. There shall be sanctions imposed on narcotic treatment facilities, including reasonable fines and license revocations, for those facilities that receive second or third provisional license. These fines will stay with the department. (Recommendation made on 9/9/13)

B. Recommendations for Narcotic Treatment Providers:

1. Induction Phase:

- A. Admission urinalysis testing shall occur no more than five days prior to induction.

- B. Drug history and personal history shall include documentation of prior treatment experience and outcome. Previous methadone treatment outcomes shall be reviewed as part of the assessment. The physician, in consultation with medical and clinical staff, will document an assessment that will identify the appropriateness of methadone treatment.
- C. Random urinalysis should be conducted at least weekly during the first three months of treatment and at least three months after the last positive urine.
- D. The current regulations shall be modified to indicate that the DDAP Bureau of Quality Assurance for Treatment and Prevention, Division of Program Licensure, where appropriate to protect patient safety, will be empowered to require that all dose adjustments during the induction phase be determined by a face-to-face consultation with a physician. The patient record shall include documentation of assessment and consultation by physician. The Team will carefully review case practice to ensure that the induction phase is done safely.
- E. The patient will be recommended not to operate a motor vehicle during the first two weeks of treatment unless there is documentation by the physician that the patient is stable and able to operate the vehicle safely. If the NTP physician concludes that a patient is not safe to drive, in accordance with current statutory requirements, he/she will report the patient to the Pennsylvania Department of Transportation (the MDAIR Team will continue to review this issue).
- F. New patients will be provided an orientation to narcotic treatment that will include signs and symptoms of overdose, contraindications, use of other drugs and medications, and expectations for participation in treatment. The format for this orientation will include educational group sessions and individual education. The information provided during the orientation process shall be included in the patient handbook for reference.
- G. New patients will be encouraged to identify and include a family member, friend or sponsor in the induction process. Education sessions and materials shall be made available to the patient's support person. Efforts will be made to encourage a patient to sign a release of information to permit this contact with family members, friends or sponsors.
- H. New patients will meet for their first counseling session within 48 hours of admission. During the first six months of treatment, a patient shall receive weekly individual therapeutic counseling; the duration to be at least one hour.
- I. Following six months of methadone treatment, a patient will be assessed by the physician and treatment staff. Documentation of this assessment will identify if the patient should continue to be seen weekly for therapy or reduced to no less than two and a half hours of therapy per month as identified in the regulations.

- J. NTPs, in accordance with licensure regulations, shall develop a protocol for the induction phase of patient treatment in a narcotic treatment center.
(Recommendation made on 11/4/13)

2. Ongoing Treatment Practices:

- A. After several positive urine screens, a protocol shall be in place to increase the number of urine screens and therapeutic treatment. The MDAIR Team recommends that DDAP shall do further work to identify best practices where clients being treated have positive urine screens or where clients are failing to engage in the therapeutic treatment regimen. DDAP shall develop best practices in order to re-engage patients who miss three consecutive days from treatment or who have positive urine screens.
- B. Physicians should follow medical best practices when determining dose changes for patients which shall include, but not be limited to, best practices for dosing guidelines.
- C. Initial and ongoing training for practitioners in methadone or pain clinic settings shall consist of a minimum of 12 hours in two years specific to opioid prescribing, where available, with an emphasis on content specific to methadone treatment and addiction screening. (Recommendation made on 11/4/13)

3. Utilization of Benzodiazepines:

- A. NTPs will generally accept into methadone treatment all persons otherwise eligible for methadone treatment who are using properly prescribed benzodiazepines. Exceptions may be made in the case of persons known to have a history of recent or repeated benzodiazepines overdose.
- B. Non-approved use of benzodiazepines will be regarded the same as other illicit drug use except that time frames for cessation of use may be longer due to recommended detox considerations.
- C. Benzodiazepines shall be properly prescribed by a board eligible psychiatrist or an American Society of Addiction Medicine (ASAM) approved physician. The patient must also keep appointments with the prescribing physician and have the permission of the Methadone Maintenance Treatment medical director.
- D. The patient must not have had a benzodiazepine-related episode of overdose in the past five years.
- E. The patient must provide ongoing consent for NTP staff to contact the prescribing psychiatrist or addiction physician.

- F. The patient at no time subsequent to approval may be found to be using non-prescribed benzodiazepines or to present with sedation due to benzodiazepine use.
- G. NTP medical staff will contact the prescriber (referred to above) to discuss issues around co-medication. These will include dosage, type of benzodiazepine, length of benzodiazepine treatment, and other pertinent issues. The patient's progress in the NTP will periodically be communicated to the benzodiazepine prescriber as well.
- H. The NTP will provide education to all new patients regarding the risks of co-medication of methadone and benzodiazepines, the limited use of benzodiazepines in treating mental health problems, and the program's policy regarding benzodiazepine use. When feasible, benzodiazepine-specific group counseling, on-site detox, referral for inpatient detox, and other support will be provided to both new and existing patients.
- I. In addition to the general urine drug screen (UDS) and benzodiazepine screen, where appropriate, the NTP program may periodically utilize special laboratory tests to determine which benzodiazepine drugs are being taken by benzodiazepine-positive patients. This will include patients with approval to take benzodiazepine medication.
- J. NTP dosing staff will be kept informed of all patients whose most recent UDS was positive for benzodiazepines and will be consistently alerted regarding such patients for signs of benzodiazepine toxicity or sedation. Patients exhibiting such signs will not be medicated and the medical director and clinical supervisor will be alerted.
- K. NTP programs will develop protocols acceptable to the department around the issues of management of benzodiazepine-impaired patients. These will include methadone dose issues, inpatient referral, termination of treatment, and other determinations relating to the safety of the patient.
- L. Where benzodiazepine-positive patients are not already approved for benzodiazepine medications but claim a need for such medication, the NTP program will provide a mental health assessment and, where appropriate, will arrange for a psychiatric evaluation which should take into consideration the individual's addiction.
- M. Except where the department provides an 'exception' in writing, NTP programs will include a portion of the required physician/certified registered nurse practitioner (CRNP) hours under Chapter 715 as on-site psychiatrist/psychiatric CRNP hours.
- N. NTPs should perform urinalysis drug screening for benzodiazepines on a regular basis.
- O. Patients using illicit drugs should be tested weekly.

- P. NTPs should be required to have a psychiatrist on staff to address mental health issues and benzodiazepine use among patients. (Recommendation made on 9/9/13)
- Q. Patients who are using benzodiazepines should not be allowed methadone take-home privileges. (Recommendation made on 9/9/13)
- R. NTPs should recommend alternatives to benzodiazepine to their patients. (Recommendation made on 11/4/13)

C. Recommendations for Methadone Pain Management:

1. Initial and ongoing training for practitioners in methadone or pain clinic settings shall consist of a minimum of 12 hours in two years specific to opioid prescribing, where available, with an emphasis on content specific to methadone treatment and addiction screening. (Recommendation made on 05/27/14)
2. DDAP should recommend that appropriate state agencies improve regulatory oversight of providers prescribing methadone for pain management. (Recommendation made on 11/4/13)
3. Recommendations for the Department of State and other agencies:
 - a. The Department of State, Pennsylvania Attorney General, Board of Medicine and Drug Enforcement Agency shall be asked to investigate the practices of providers whose patients may have overdosed and/or died where methadone was prescribed for pain management. (Recommendation made on 11/4/13)
 - b. The Department of State shall provide any information required by the MDAIR Team to carry out the statutory obligations under Act 148.
4. Urine screening and physical exams should be conducted before prescribing methadone for pain management. (Recommendation made on 11/4/13)
5. Any person prescribing or dispensing methadone for pain management only shall identify the medication in the Prescription Drug Monitoring Program (PDMP). The Team shall also continue to explore avenues to report information in the PDMP in accordance with 42 CFR and other state confidentiality regulations. (Recommendation made on 11/4/13)

APPENDIX C

MDAIR CORONERS REPORT



DDAP-FM-0001
Rev. 03/05/2014

CORONER'S DRUG DEATH REPORT

This form should be submitted within 7 days of the completion of cause and manner of death.

Coroner's Name: [Click here to enter text.](#) **County:** [Click here to enter text.](#)

Date of Death: [Click here to enter a date.](#) **Time of Death:** [Click here to enter text.](#)

Coroner's Case #: [Click here to enter text.](#)

Manner of Death: [Choose an item.](#)

Cause of Death: [Click here to enter text.](#)

Was prescription medication or illicit drug a cause or contributing factor in the death? Yes No

Was methadone a cause or contributing factor in the death? Yes No

Was law enforcement involved? Yes No

If yes, what agency? [Click here to enter text.](#)

Contact person: [Click here to enter text.](#)

Incident #: [Click here to enter text.](#)

Was an autopsy performed? Yes No

Was a toxicology test performed? Yes No

Date of Results: [Click here to enter a date.](#)

If prescription, please provide the following information:

Amount prescribed: [Click here to enter text.](#)

Amount found: [Click here to enter text.](#)

Name and Address of Prescriber:

[Click here to enter text.](#)

Name and Address of Pharmacy:

[Click here to enter text.](#)

Date Issued: [Click here to enter a date.](#)

Dosage: [Click here to enter text.](#)

Name of Narcotic Treatment Center: [Click here to enter text.](#)

**List All Substances/Chemicals/Drugs/Alcohol/Poisons
That Tested Positive and the Levels**

Substances/Chemicals/Drugs/Alcohol/Poisons	LEVELS
Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.

Decedent's Age: [Click here to enter text.](#) **Gender:** [Click here to enter text.](#)
Race: [Click here to enter text.](#) **Marital Status:** [Choose an item.](#)
County of Residence: [Click here to enter text.](#)

Describe drug(s) evidence found on person/scene (i.e., packing, stampings, markings, etc.)

[Click here to enter text.](#)

Additional notes/remarks:

[Click here to enter text.](#)

Submit completed form to:

By email to: ra-daod@pa.gov
or by fax to: 717-787-6285

For questions and additional information, contact:

Kathy Jo Stence, Drug and Alcohol Program Analyst
Department of Drug and Alcohol Programs
Bureau of Treatment, Prevention and Intervention
02 Kline Village
Harrisburg, PA 17104-1503
Email: kstence@pa.gov
Phone: 717-783-8200

APPENDIX D

MDAIR TREATMENT PROVIDER FORM



pennsylvania
DEPARTMENT OF DRUG AND
ALCOHOL PROGRAMS

METHADONE DEATH/INCIDENT CASE REVIEW FORM

Report type: Choose an item.

Date report filed: Click here to enter a date. **Report source:** _____

MDAIR ID#: _____ **Client ID# (if applicable):** _____

NAME: _____ **Client Gender :** _____

AGE: _____ **Date of treatment admission:** _____

Date of death or incident: Click here to enter a date.

Cause of death: _____

Manner of death: Natural Accident Suicide Homicide Undetermined

Was methadone a cause or contributing factor in the death: _____

DDAP obtained the following official report(s): Police Coroner Medical Examiner

Individual's general condition at the time of death or incident (e.g., physically or mentally ill, ability impaired, etc.):

Description of incident (Include any external factors that contributed to the death or incident):

Was anyone else harmed as a result of this death/incident: YES NO

- **If yes, describe:**

1. Source Providing methadone:

Medication assistance program Illicit Source Physician **Type of physician:** _____

2. Patient Length of time in client or being RX Methadone:

- < 2 weeks 2 weeks- 1 month 1-3 months 3-6 months
- 6-12 months 1-2 years > 2 years

3. Methadone dosage at the time of incident or death: _____

4. Date of last methadone dosage change: _____ Previous dosage: _____

5. Take home medication: _____ How many per week: _____

6. Date of last *face-to-face* visit with methadone prescribing physician: _____

6a. Purpose of the visit:

7. Indicate the *date and length* of each counseling sessions for the 90 days prior to the incidents:

Group sessions: _____

Individual sessions: _____

Other counseling sessions (specify): _____

DATES:

8. Reported use of any other prescription and/or other drugs use? NO Yes (if yes, complete chart)

Name of drug (including prescriptions)	Dosage (if any)	Frequency

8a. Did the treatment plan address the drugs listed above: _____ Choose an item.

8b. Documentation of the NTP physician consulting with other prescribing providers: _____

9. ****Number of Urinalysis in the 90 days prior to the death or incident:** _____

***the above question must be answered for MAT cases, optional for other source*

9a. How many of the above Urinalysis were scheduled: _____ Unscheduled: _____

9b. How many were positive: _____

9c. Below provide dates and drug(s) for positive results:

Date	Drug

10. Clinic/physician response to positive urinalysis and/or use of other contraband drugs, including prescriptions:

- Was there an increase in individual counseling sessions? YES NO
- Was there an increase in group counseling sessions? YES NO
- OTHER:

10a. Was the individual adherent to treatment plan and/or recommendation(s): YES NO

If no, state how the individual failed to adhere to their treatment plan and/or recommendation(s):

11. Other medical diagnosis:

12. Was law enforcement involved: YES NO

- *If yes, what agency and contact person:*

13. Was a toxicology test performed: YES NO

If yes, a list of all substances/chemicals/drugs/alcohol/poisons that tested positive and levels below:

SUBSTANCES/CHEMICALS/DRUGS/ALCOHOL/POISONS	LEVELS

14. Were any criminal charges filed as a result of the incident or death: YES NO

APPENDIX E

MDAIR GENERAL REPORTING FORM



METHADONE DEATH/INCIDENT GENERAL REPORTING FORM

We understand you may not have all the requested information. Please provide whatever information you have available below.

Report type: Choose an item.

Date report filed: Click here to enter a date.

Name of individual filing report: _____

Contact phone #: _____

Relationship to individual involved in death or incident: Choose an item.

Information regarding the individual involved in incident or death

First name: _____ **Last name:** _____

Client Age: _____ **Client Gender :** Choose an item.

Race: _____ **Ethnicity:** Choose an item.

Marital Status: Choose an item.

Date of death or incident: Click here to enter a date.

Location of death or incident(city and state): _____

Manner of death: Natural Accident Suicide Homicide Undetermined

Description of incident (Please include how methadone was a contributing factor to the incident/death):

Was anyone else harmed as a result of this death/incident? YES NO

- If yes, describe:

15. Source Providing methadone:

Drug treatment program Illicit Source Unknown

Physician Type of physician (if Known) _____

16. Methadone dosage at the time of incident or death:

17. Any other prescription and/or other drugs use? NO Yes (if yes, complete chart)

Name of drug (including prescriptions)	Dosage (if any)	Frequency

18. Other medical conditions:

Is this matter being investigated? YES NO UNKNOWN

- If yes, by whom: _____

Medical Providers (including drug treatment):

Provider Name: _____

Address : _____

Telephone: _____

Provider Name: _____

Address : _____

Telephone: _____

APPENDIX F MDAIR ACTION – DEATH FORM

MDAIR CASE # _____

Natural Cause Death – No Coroner exam performed

Manner cause of death: _____

Client First Name & Last initial: _____

Date of death: _____ **Date of report:** _____

DDAP visit conducted: YES NO **Date of visit:** [Click here to enter a date.](#)

Citation(s) given: YES NO

REQUESTED OR OBTAINED REPORTS/RECORDS:	DATE REQUESTED	CONTACT PERSON:	DATE RECEIVED
<input type="checkbox"/> Coroner			
<input type="checkbox"/> Police: (<input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> State)			
<input type="checkbox"/> Police: (<input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> State)			
<input type="checkbox"/> Treatment Provider			
<input type="checkbox"/> Medical Provider:			

Use below section if DDAP is still awaiting information:

Action/ contact (e.g., 2 nd call to abc for report)	Date

Appropriate for MDAIR Committee Review: Yes No

APPENDIX G MDAIR ACTION - INCIDENT FORM

MDAIR CASE # _____

Nature of incident: _____

Client First Name & Last initial: _____

Date of Incident: [Click here to enter a date.](#) **Date of report:** [Click here to enter a date.](#)

DDAP visit conducted: YES NO **Date of visit:** [Click here to enter a date.](#)

Citation(s) given: YES NO

REQUESTED OR OBTAINED REPORTS/RECORDS:	DATE REQUESTED	CONTACT PERSON:	DATE RECEIVED
<input type="checkbox"/> Coroner			
<input type="checkbox"/> Police: (<input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> State)			
<input type="checkbox"/> Police: (<input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> State)			
<input type="checkbox"/> Treatment Provider			
<input type="checkbox"/> Medical Provider:			

Use below section if DDAP is still awaiting information:

Action/ contact (e.g., 2 nd call to abc for report)	Date

Appropriate for MDAIR Committee Review: Yes No