

Maryland EMS News

For All Emergency Medical Care Providers

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Special Edition: EMS and Maryland's Opioid Crisis

This special edition of *Maryland EMS News* focuses on the current opioid crisis and its effect on Marylanders, including EMS providers. MIEMSS recognizes that as emergency health care providers, you routinely face the effects of opioid addiction. We also understand that it can seem like there is no end in sight for this opioid crisis, even that the crisis is worsening daily. But Maryland officials, from the state to the local levels, are committed to combating the opioid epidemic using every means available. In this edition of the newsletter, we will share some of the programs and tools that are effecting positive changes toward eradicating the opioid crisis in our state. You will also find some hopeful and inspiring stories, and you may discover some helpful guidelines and resources. Every provider in Maryland can make a difference in the life of someone suffering from addiction. Stay strong and persevere through these very challenging times, and together we will get through this crisis.

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Thank You to Our Emergency Medical Services Personnel



Opioid Operational Command Center Executive Director Clay Stamp. Photo courtesy of Mr. Stamp.

As both a paramedic and executive director of the Opioid Operational Command Center, I recognize the challenges EMS systems are facing in responding to drug overdose calls. Further, I realize the impact the heroin and opioid crisis is having on each of you. Thank you for your endurance and perseverance in saving lives first and foremost.

As you are aware, Governor Larry Hogan declared a State of Emergency in response to this crisis in Maryland as a call to action, to establish a system of state and local coordination led by health officers and emergency managers, and to promote a

balanced approach in combating the heroin and opioid epidemic through prevention, enforcement, and increased access to treatment.

As part of this effort, the leadership of MIEMSS, along with other state agencies, is fully engaged in supporting local jurisdictions through the work of the Opioid Operational Command Center.

Additionally, opioid intervention teams (OITs) have been established in each of Maryland's 24 jurisdictions and are led by emergency managers and health officers. They are multi-agency bodies that coordinate with the community and complement and integrate with the statewide opioid response effort. The OITs are designed to represent a broad cross-

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History of Opioid Use and Current Crisis in Maryland

On March 1, 2017, Governor Larry Hogan declared a state of emergency in response to the opioid crisis in Maryland. As an EMS provider in Maryland, you have no doubt seen first-hand the growth of opioid addiction for the past several years through the ever-increasing number of acute overdose calls, and are only too aware of the strain this crisis has placed upon public health. While the disease of opioid addiction has only recently reached a crisis level in Maryland, the current situation has a complex history tracing back over a century.

Opioids are a class of medication that reduce pain by acting upon receptors in the brain and spinal cord (also known as analgesics). Opioids have long-held a legitimate medical purpose in the treatment of severe, acute pain, including during prehospital emergency care. Unfortunately, opioids are also highly addictive in nature when utilized for longer periods of time.

Opioids were infrequently prescribed for non-cancer chronic pain in the mid to late 20th century. In 1996, when oxycodone was released for prescription purposes under the brand name OxyContin, a large-scale marketing campaign was also launched to change prescribing practices. The campaign was successful in convincing prescribers that opioids were less addictive than initially thought and, over the following two decades, an increasing number of opioid medications were prescribed for an even greater number of medical conditions. Ultimately, this resulted in a tremendous number of individuals addicted to opioid medications.

As the number of individuals suffering from opioid addiction began to increase, enforcement efforts were taken to limit the prescribing of opioid medications. While this effort likely prevented individuals who had never been prescribed the medication from becoming addicted, it forced many opioid-dependent individuals to find opioid substances through illicit means. In response to the demand, the illicit marketplace had an inexpensive solution: heroin.

Heroin was initially marketed by Bayer Pharmaceuticals in 1898 as a less addictive analgesia than morphine. The federal government has classified heroin as a Schedule I Controlled Substance, meaning it has high potential for abuse and no appropriate medical purpose. Despite the federal prohibition, and law enforcement's best efforts, it remains widely available. Heroin is increasingly found to be mixed with other substances, most notably synthetic opioids such as fentanyl and carfentanil, which increase the potency of the drug and raise the possibility of unintentional overdose.

Maryland has taken many actions to respond to this crisis. Governor Hogan signed an executive order creating a Heroin and Opioid Emergency Task Force in February 2015 to increase coordination and collaboration among various state entities with a role in the response to the crisis. MIEMSS has participated in the state's response to the opioid crisis since the task force was initially formed. MIEMSS has taken several actions, which are discussed in further detail below, to assist with the response since the formal declaration of the emergency in March 2017.

MIEMSS provides data from eMEDS[®] to the Maryland Department of Health for epidemiological analysis, namely to assist public health practitioners identify clusters of overdoses and target interventions toward communities most affected (see page 11).

State EMS Medical Director Dr. Richard Alcorta has conducted presentations about the opioid crisis at numerous meetings and events throughout the state. Among other topics, Dr. Alcorta has addressed 1) appropriate personal protective equipment (PPE) for providing care to an opioid overdose patient, or in the presence of opioids at the scene (see page 3), and 2) the need to increase the administered dosage of naloxone for patients who do not respond to lower dosages because they have taken high-potency opioids, such as fentanyl and carfentanil (see page 10).

For patients who refuse transport after reversal of an opioid overdose, MIEMSS developed a card that can be left with the patient that includes Maryland Crisis Hotline information and instructions on providing emergency medical care for an opioid overdose. The card has been distributed to EMS jurisdictions statewide, and the statewide Opioid Operational Command Center recently developed a version of the card in Spanish. MIEMSS is continuing to work with EMS jurisdictions to identify opportunities to decrease costs associated with responding to this crisis (see page 5).

Most recently, MIEMSS added naloxone to the scope of practice for emergency medical responders (EMRs) through an emergency protocol that took effect on October 1, 2017 (see page 3).

Maryland is not the only state facing the opioid epidemic; many other states and the federal government have also declared this crisis as a public health emergency. MIEMSS will continue to coordinate the EMS system's response to this pressing issue. The roots of the current crisis are complex, tracing back many years, and it will take continual efforts to decrease the prevalence of this disease that affects the citizens of Maryland.

Sources: The Ongoing Opioid Prescription Epidemic: Historical Context. Marcia L. Meldrum, PhD. *Am J Public Health*. 2016 August; 106(8): 1365–1366.
Opioid history: From 'wonder drug' to abuse epidemic. Sonia Moghe, CNN. October 14, 2016
(<http://www.cnn.com/2016/05/12/health/opioid-addiction-history/index.html>)



Emergency Treatment of an Opioid Overdose

1. **Call 9-1-1:** Immediately. The Good Samaritan Law protects you from prosecution. Don't run; call 9-1-1!
2. **Rescue Breathing:** Tilt the head, lift the chin, and pinch the nose. Give 1 breath every 5 seconds.
3. **Naloxone:** Give if you have it. If first dose does not revive the person, administer a second dose.
4. **Recovery Position:** If you must leave the person alone, place them on his or her left side.

Recovery is possible. Support, guidance, and assistance on how to access Substance Use Disorder services is available 24/7 from the

Maryland Crisis Hotline
1-800-422-0009

Naloxone works. Information on obtaining Naloxone through the Overdose Response Program is available at NaloxoneMD.org
MdDestinationRecovery.org

State EMS Medical Director Clarifies PPE Guidelines for Suspected Overdose Calls

As an EMS provider in Maryland, you may have had to respond to a call for a sick person, breathing difficulty, or arrest where the patient may be a victim of a drug overdose. Certain opioids associated with these overdose victims such as carfentanil or acrylfentanyl are very potent and, if inhaled or ingested, could cause symptoms in a first responder. The State EMS Medical Director is encouraging Maryland EMS providers to continue to use universal personal protective

equipment (PPE) and precautions in these situations. You should only need to utilize respiratory protection (P-100 masks) if you are **actively handling and processing fentanyl** or its drug analogues, such as carfentanil—so avoid contact with any substance found at the scene of an overdose. During a typical overdose call, EMS providers are not handling fentanyl, and universal PPE is sufficient protection.

Guidance on PPE and precautions when coming into contact with unknown substances was created collaboratively by Opioid Operational Command Center representatives from the Maryland Department of Health, MIEMSS, and the Maryland State Police. Standard PPE includes nitrile gloves, and only if there is blood or other bodily fluids present should a face shield/standard mask and splash protection be used. Only for higher risk incidents, such as active entry by tactical teams where a flash bang has been discharged or aerosolization of powders occurs, should a more aggressive form of respiratory protection be used. This enhanced respiratory guidance is available from the National Institute for Occupational Safety and Health. Detailed information about PPE and respiratory protection is available on MIEMSS' website or by clicking bit.ly/2xV3jBg.

Although there have been rare case reports of public safety/emergency personnel across the United States being sickened from exposures to fentanyl and carfentanil, there have not been any law enforcement or EMS deaths associated with contact during typical overdose calls. However, it is imperative that you are prepared to handle these situations: promptly support an unresponsive patient's respiration, support their circulation with CPR if indicated, and administer naloxone to save their life. Do not spend valuable minutes putting on Tyvek suits, as they are not indicated.



Emergency Protocol Change: Maryland EMRs Can Administer Naloxone

In certain situations, an emergency medical responder (EMR) can be the first EMS/fire responder to arrive on scene in response to a 9-1-1 call for an overdose. In order to deliver life-saving medication as quickly as possible to these patients, all EMR providers in Maryland are now authorized to administer naloxone, the reversal agent for an opioid overdose. This change was supported by MIEMSS' Protocol Review Committee, the Maryland State Firemen's Association, and the EMS Board.

This protocol change went into effect October 1, 2017. However, EMR providers must complete approved training before administering naloxone in the clinical environment. Jurisdictions that have not already trained EMR personnel to administer naloxone will need to arrange for such training. Local health departments often provide no-cost training in naloxone administration that is recognized as meeting EMR training requirements. MIEMSS' Online Training Center (www.emsonlinetraining.org) also offers naloxone training with skills check-off that meets the requirements.

Naloxone is widely available throughout Maryland to treat overdose patients. Local health departments have been training lay persons in the use of naloxone for over a year, and naloxone is available in many pharmacies. With this change in protocol, all Maryland certified/licensed EMS providers are also now able to administer naloxone.



Naloxone Use Reporting to the Maryland Poison Center

The Maryland Poison Center (MPC), as the state-designated poison control center, is playing vital role in fighting the opioid epidemic that is destroying lives and families across Maryland. In partnership with the Maryland Department of Health, MPC collects data on each call reported to them for which naloxone was administered. They then aggregate that data and report usage rates weekly to the Department of Health and local health departments so these agencies are armed with information to prevent and control the spread of opioid use and overdose deaths.

Naloxone training for law enforcement and the public teaches that an individual should call the MPC at 1-800-222-1222 to

report any time naloxone is administered, within 1 to 2 hours of the incident.

As an EMS provider, you may wonder why you should also report, or encourage a bystander to report, any incident where you had to administer naloxone. After all, naloxone administration is reported in your patient care report through eMEDS®. But, this is why you should take the extra step to make that very important call to the MPC: Maryland is racing against the clock to beat this epidemic.

eMEDS® is a crucial tool for assessing and planning for EMS care throughout the state. But it handles millions of pieces of raw data on a daily basis, and aggregating and

reporting naloxone data is not a rapid process. Often, the MPC collects and reports naloxone data to health departments before patient care reports are submitted into eMEDS®.

If you attend a call during which you provide naloxone, please encourage at least one bystander to report this. Or make the call yourself; it only takes a few minutes. Although you are on the front lines of this crisis, the information you can provide to the MPC with a brief call will help fight the epidemic in other significant ways.

MIEMSS thanks Angel Bivens of the MPC for contributing to this article.

Message on the Opioid Crisis from Maryland Department of Health Officials

When Governor Larry Hogan declared a State of Emergency in response to the rapid escalation of the heroin and opioid crisis in March 2017, Maryland became the first state to take this step. Unintentional overdose death has risen to the fourth leading cause of death in Maryland, after cardiovascular disease, cancer, and stroke. Last year, more than 2,000 Marylanders died of unintentional overdoses. This is the equivalent of four or more jumbo jets crashing in our state with no survivors. We have never experienced an epidemic of this lethality.

The root causes of this epidemic are found in three areas. First and foremost, for the past 25 years, there has been a growing tendency for health care providers to treat many painful conditions with long-acting opioids. Early on, it was thought that there was only a minimal risk that patients would become addicted to these medications. We know now that the risk is substantial. We estimate that there are hundreds of thousands of Marylanders who are now suffering from a substance use disorder (SUD). We also now have a better understanding that becoming dependent on opioids is a medical condition like diabetes and many other chronic diseases, and should not be stigmatized.

As many people struggling with opioid dependency found that they could no longer access prescriptions, they turned to illicit drug dealers for opioids. On the illicit market, prescription opioids are highly valued and very expensive. In fact, OxyContin (oxycodone) usually costs \$80 per pill on the street. This is compared with \$10 for a cap of heroin. It is not surprising that many people found heroin a more affordable means to avoid withdrawal than prescription tablets diverted for illicit purposes. We have seen a dramatic increase in the number of people using heroin over the past five years. This is the second factor in the epidemic.

The final and most lethal factor is the introduction into the drug market of very potent synthetic opioid analogs such as fentanyl and carfentanil. These drugs are hundreds of times more potent than morphine. These substances are also less expensive than heroin. A kilogram of heroin purchased from a drug cartel can cost a dealer \$64,000. A kilogram of fentanyl purchased by mail order over the Internet can cost a dealer \$2,000. The dealers will mix these opioids with heroin, cocaine, or virtually any other drug to get greater potency at a lower cost. Unfortunately, the dealers do not adhere to strict scientific methods and the amount of potent drug will vary widely from dose to dose. From a financial perspective, for the drug dealer, the addition of these potent lower-cost drugs is very beneficial. For the user of the drugs, it is like playing Russian roulette. Any dose can have a higher and immediately fatal amount of fentanyl or carfentanil.

Maryland is investing millions of dollars and every available resource to fight this epidemic through prevention, enforcement, and treatment/recovery efforts. We will continue to add evidence-based practices, promising practices, and treatment modalities until we are successful.

The work that EMS providers do is a critical part of the solution, and we look forward to working collaboratively with MIEMSS and the entire EMS community as we address this horrific epidemic. This is truly an “all hands on deck” approach.

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Legal Tidbit: Can You Report an Overdose When Patient Refuses Transport?

You encounter a patient who is in a stupor or unconscious with respiratory depression or arrest; you administer naloxone and the patient quickly recovers, but refuses transport. What can you do if you feel an intervention could be of value to the patient who may be an opioid abuser? Your county health department could play an important role here, but can you communicate the information needed for the department to contact the patient?

By now the principles of the Health Insurance Portability and Accountability Act (HIPAA) privacy regulations, known informally as the Privacy Rule, are firmly embedded in the psyche of every EMS provider. The Privacy Rule strives to limit disclosure of a patient's health information to the greatest extent possible, consistent with the patient receiving quality treatment and, of course, a bill for services provided. EMS providers are now as sensitive to safeguarding data as they are to providing proper care.

However, there are many circumstances where the Privacy Rule can be an impediment to health care from the perspective of both the patient and other members of the community. It can prevent information from being shared that, if known, could provide additional treatment opportunities for the patient and protect members of the community. The Privacy Rule, to some extent, recognizes this paradox. The rule allows for the disclosure of protected health information to a public health authority under certain circumstances. This authorization for disclosure may have a role in treating victims of the opioid emergency recognized in the Governor's Executive Order Regarding the Heroin, Opioid, and Fentanyl Overdose Crisis, Declaration of Emergency, which is currently in effect.

Under HIPAA, health care providers, including EMS providers, may, but are not required to, share limited protected health information with "public health authorities or other entities who are legally authorized to receive such reports for the purpose of preventing or controlling disease, injury, or disability." This includes reporting disease, injury, and vital events (e.g., births or deaths), and conducting public health surveillance, investigations, or interventions. A county health department does qualify for these purposes.

A county health department is a public health authority and is able to provide an intervention in the case of an opioid abuser. An EMS provider may, but is not required to, disclose limited information to allow the county health department to provide follow-up interventions. The United States Department of Health and Human Services has issued a checklist that will assist you in this endeavor (see page 6).

If your county health department is interested in providing intervention in cases of opioid abuse, your EMS Operational Program officials and the county health department should work together to coordinate an intervention process. MIEMSS is available to provide assistance in this process.

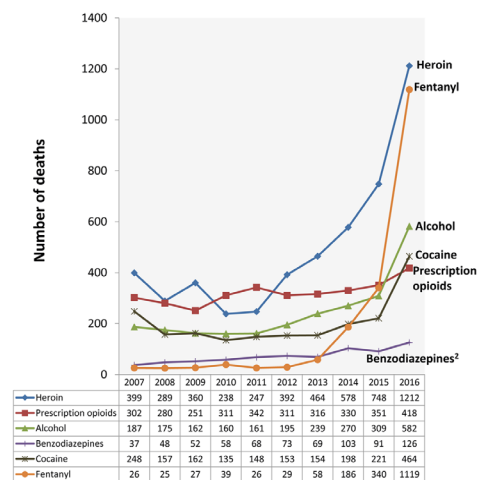
EMS Naloxone Grant Program

The Maryland Behavioral Health Administration, the Opioid Operational Command Center, and MIEMSS are partnering to provide financial relief to EMSOPs that are currently carrying the increased burden of providing naloxone without reimbursement from the patient or insurance providers. Factors affecting the increased or unrecoverable cost of naloxone administration include the following:

1. Maryland EMSOPs face an estimated \$100,000 to \$150,000 per year in unrecoverable costs directly associated with the administration of naloxone for patients not transported to the hospital.
 - a. Current Centers for Medicare and Medicaid (CMS) regulations prohibit Maryland EMSOPs from billing for services rendered when a beneficiary (patient) is not transported to the hospital.¹ MIEMSS estimates that approximately 20% of patients administered naloxone in CY 2016 were not transported to a hospital.
 - b. With limited exceptions, private health insurance carriers in Maryland mirror CMS regulations and do not reimburse EMSOPs for services rendered when a beneficiary is not transported to a hospital.

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Figure 5. Total Number of Drug- and Alcohol-Related Intoxication Deaths by Selected Substances¹, Maryland, 2007-2016.



¹Since an intoxication death may involve more than one substance, counts of deaths related to specific substances do not sum to the total number of deaths.

²Includes deaths caused by benzodiazepines and related drugs with similar sedative effects.



HIPAA: Public Health Authority Disclosure Request Checklist

A Health Insurance Portability and Accountability Act (HIPAA) Covered Entity is permitted to disclose protected health information (PHI) without individual authorization to a “public health authority” that is authorized by law to collect or receive such information for the purpose of preventing or controlling disease, injury or disability, such as for purposes of reporting disease, injury, or vital events, or for public health surveillance, investigations, or interventions; or, at the direction of a public health authority, to an official of a foreign government agency that is acting in collaboration with a public health authority. (45 CFR 164.512(b)(1)(i)).

The HIPAA Privacy Rule imposes certain requirements and conditions on these disclosures, such as that the covered entity must make reasonable efforts to limit the PHI disclosed to the minimum necessary to accomplish the intended purpose of the disclosure. The following checklist is intended to help public health authorities be prepared to provide a covered entity with the information and representations necessary for the covered entity to ensure that a disclosure meets the specific requirements and conditions outlined in the Privacy Rule.

The requestor of the PHI should be able to demonstrate or represent that:

- The requestor is a “public health authority” as defined in the Privacy Rule. The Privacy Rule defines “public health authority” as an agency or authority of the United States, a State, a territory, a political subdivision of a State or territory, or an Indian tribe, or a person or entity acting under a grant of authority from or contract with such public agency, including the employees or agents of such public agency or its contractors or persons or entities to whom it has granted authority, that is responsible for public health matters as part of its official mandate.
- The requestor has legal authority to collect or receive the information it is requesting for the stated public health purpose.
- The information being requested is the minimum necessary for the stated public health purpose.

In most cases, the requestor should be prepared to provide a written statement of its legal authority. However, in circumstances where it would be impracticable to provide a written statement, a covered entity may rely, if reasonable, on an oral statement of authority.

In addition, the requestor should be prepared to verify its identity by:

- Presenting an agency identification badge, other official credentials, or other proof of government status if the request is made in person;
- Making the request on the appropriate government letterhead if the request is made in writing; or
- If the request is by a person acting on behalf of a public official, providing a written statement on appropriate government letterhead that the person is acting under the government’s authority or other evidence or documentation of agency, such as a contract for services, memorandum of understanding, or purchase order, that establishes that the person is acting on behalf of the public official.

Additional guidance about the HIPAA Privacy Rule and public health disclosures may be found at: <http://www.hhs.gov/ocr/privacy/hipaa/understanding/special/publichealth/index.html>

Thank You to Our Emergency Medical Services Personnel

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section of their communities to coordinate and drive local projects.

We recognize the need and are working quickly to identify, align, and link programs to “touch points,” such as hospital emergency departments, where individuals suffering non-fatal overdoses can be rapidly guided to recovery treatment.

This crisis is particularly challenging because of the stigma that surrounds those with substance use disorders, a propensity to ignore the crisis in thinking it may just disappear, and competing interests in how it is managed. Therefore, we must focus on achieving success in four areas:

1. Elevating the conversation in our communities
2. Targeting or focusing our energy around a balanced strategy
3. Using data to drive program decisions and using performance indicators to measure the efficacy of projects
4. Persevering and recognizing it has taken a number of years to reach this point, and it may take time to see sustainable results

This issue of *Maryland EMS News* includes information related to EMS providers, such as how providers can protect themselves when encountering unknown substances and medication safety for children.

Look for updated information regarding your delivery of care in future issues.

I’m proud to be a part of the Maryland EMS system and to be associated with the highest-caliber emergency services providers in our country. We will continue to work together to seek ways to support your needs in addressing this crisis. Thank you again for all of your efforts in dealing with this crisis each and every day.

Clay Stamp

Executive Director

Opioid Operational Command Center

EMS Naloxone Grant Program

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2. Through government and health care provider initiatives, naloxone has garnered popularity with the public as an antidote for opioid overdoses. Efforts to make the drug readily available to the layperson have had the adverse effect of contributing to the rise in cost of the drug. “The cost of naloxone, once close to a dollar per dose, has skyrocketed over the past few years as demand has grown, causing members of Congress to question why the price has increased ‘by 1,000% or more.’”^{2,3} Maryland pharmaceutical vendors estimate the cost of EMS naloxone between \$27.00 and \$53.00 per unit of 2 mg/2 mL Luer-Jet Prefilled Syringe (one dose). Per unit cost can vary depending on bulk purchasing and negotiated contracts with some of the larger EMSOPs.⁴
3. Based on a census conducted in mid-2017, at least three EMSOPs in Maryland do not bill for services. Calvert, Howard, and St. Mary’s provide EMS solely through tax subsidies or donations provided to volunteer rescue squads and fire departments. The other Maryland EMSOPs attempt to bill third-party payors or the patient, but are limited by the non-transport prohibitions listed above (i.e., EMS cannot bill if the patient is not transported to the hospital). In addition, Maryland law prohibits EMSOPs from

attempting to recover costs above and beyond (a “balance bill”) those paid by a third-party payor.⁵

The reimbursement program will be funded by a \$200,000 grant from the Maryland Behavioral Health Administration to MIEMSS. MIEMSS will pass-through these grant funds to EMSOPs based on the number of previous naloxone administrations where the patient was not transported or refused transport to the hospital. eMEDS® data will be used to determine the number of past naloxone administrations within a defined period. Only one naloxone administration per patient contact will be incorporated into the funding formula. Based on input from Maryland pharmaceutical vendors, the formula utilizes an estimated cost of \$40.00 per unit of 2 mg/2 mL Luer-Jet Prefilled Syringe of naloxone. EMSOPs that do not procure their own pharmaceuticals and instead obtain supplies from local hospitals are prohibited from receiving these grant funds. Although the amount of grant funds awarded to each jurisdiction will be based on past naloxone administrations, grant funds that are awarded under this program may be used only to purchase new naloxone and not to reimburse for naloxone expenses already incurred. EMSOPs that bill patients for non-transport are prohibited from receiving funds under this grant. Information detailing the specifics of the grant program will be distributed by MIEMSS to jurisdictions in the coming weeks.

¹ The Medicare Ambulance Benefit & Statutory Bases for Denial of Claims, <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AmbulanceFeeSchedule/Downloads/ambabn71603.pdf>

² Petersen M. As need grows for painkiller overdose treatment, companies raise prices. Los Angeles Times. From www.latimes.com/business/la-fi-naloxone-sales-20160707-snap-story.html.

³ Garza A. EMS Data Can Help Stop the Opioid Epidemic. *Journal of Emergency Medical Services*. <http://www.jems.com/articles/print/volume-41/issue-11/features/ems-data-can-help-stop-the-opioid-epidemic.html>

⁴ Bound Tree Medical, <https://www.boundtree.com/naloxone-373369-pharm-11648-335.aspx?search=373369>

⁵ Md. INSURANCE Code Ann. § 15-138

The Push HOPE Project: Jesse's Story

Hope and help for individuals addicted to opioids comes in many forms, from state programs to local, community-driven efforts. In Carroll County, Jesse Tomlin is navigating the non-profit world to fight the opioid addiction crisis through his recently-founded organization: the Push HOPE (Heroin Opioid Prevention Effort) Project. Push HOPE engages in advocacy, awareness, education, and prevention in Carroll County and beyond, to stop addiction before it starts. The organization also provides resources and assistance those who need treatment for opioid addiction, and provides naloxone training to the public. With its partner organization Rising Above Addiction, the Push HOPE Project is hosting a multi-city music tour, Stay Clean Chase Dreams, featuring artists in recovery from addiction. The alcohol and drug-free concerts offer a safe place for people in recovery to have a good time, enjoy music, and network with others, while the proceeds benefit those needing treatment for their addictions.

Managing a non-profit is quite a task for 30-year-old Jesse, who also works full time in construction. But Jesse is also a recovering addict. His dedication to this mission to prevent opioid abuse comes from a place of intimate knowledge and empathy. Jesse knows what it is like to be brought back from the brink of death. He wasn't saved with naloxone once, twice, or even three times; Jesse overdosed and stopped breathing between *15 and 20 times*. Even Jesse doesn't know exactly how many times he was saved.

Jesse's addiction story is not unlike many others. He survived a crash early in his life that kept him in the hospital for nine days. At that time, he was prescribed heavy narcotics to deal with the pain. He admits to having experimented with drugs before this injury, but there was something different about taking opioid pills. He began to take higher and higher doses, even sharing medication with his classmates in college, and his body began to develop a higher tolerance. Jesse realized he was addicted when he went through withdrawal for the first time, having stopped taking opioid pills for a short period of time. But four years after the injury, something changed that propelled his addiction to something stronger, and cheaper—heroin.

In 2012 pharmaceutical companies began developing opioid pills that were harder to crush and take intranasally (delivering a more powerful high than ingesting the drug). An unintended consequence of this change, meant to prevent opioid abuse, sparked a shift in the "street drug" market. It became tougher to find crushable pills, and many addicts turned to heroin, which was, and still is, cheaper and easier to obtain.

It wasn't until deep into his addiction that Jesse made the connection between prescription opioid medication and heroin, having never realized they were chemically related. Heroin, in fact, is derived from morphine, which is itself obtained from opium poppy plants. Morphine, like other prescription opioid medications, is an analgesic that works inside the brain to alter how the body responds to pain. In high doses, opioids can deliver a surge of euphoria ("rush") to the user, especially when inhaled or injected.

One beautiful Saturday afternoon a few years ago, Jesse found himself in a motel room, high and frustrated. All his friends were out in the world, working, playing, or being with their friends and family. It was this moment that he realized that his tolerance had reached such a high level that the drugs no longer took him "out of himself." He asked for help.

With help from his family, Jesse enrolled in a treatment program and began to attend 12-step fellowship meetings for support. Jesse was clean and sober for 18 months. Then he relapsed. And this cycle continued, and the consequences became worse and more frequent each time he relapsed after a period of sobriety. He eventually found himself in drug court, which provided treatment options while keeping Jesse out of jail, and then spent time in a recovery house.

Jesse is in recovery now, having spent the last seven months sober. But he takes

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Jesse Tomlin, founder of the Push HOPE Project, marks a milestone on his road to recovery from opioid addiction. The Push HOPE Project assists those seeking treatment for addiction and helps prevent opioid abuse through youth education. Photo courtesy of Mr. Tomlin.

A Difficult Position: On Being an EMS Provider and Sibling of an Addict

What do you think your life be like if a loved one was addicted to opioids? Would you lay awake at night worrying? Would you worry that you would get a phone call at work with the worst news? Would you be afraid to leave them home alone, even if your loved one was an adult?

Here is something that most of you do not have to imagine: arriving on a call—for the third time in a day—to find an unresponsive person who has overdosed. But what if that person was your loved one?

The scenario is not too far-fetched for Karey, whose brother is a recovering addict. But Karey is also a Maryland-licensed paramedic. She has saved his life, among many others she has saved during her career. During a recent interview, Karey shared her thoughts on being an EMS provider *and*

caring for someone suffering from addiction. And her story is heartbreaking, but also hopeful.

We will call Karey's brother Sam, for the sake of privacy for the family. Sam is alive and in recovery, but for Karey, there is no rest when your brother is an addict. Like many Maryland families, Karey and Sam grew up in the suburbs, excelled in school, and have good parents who provided well for them. Sam hid his addiction well from her, until the first time he had to be resuscitated. That day changed the course of both their lives. He came to live with her, and she took on the responsibility of providing for his basic needs and taking him for drug testing, which, Karey says, he routinely found ways to avoid. Sam stole from Karey and pawned her belongings. She received private calls at work telling her

that her brother had overdosed again. Sam even overdosed at Karey's house while she was home, prompting her to call 9-1-1 for help—colleagues from her own department responded.

Karey constantly worried that she would come home from a shift and find Sam dead. She had one word to describe the impact Sam's addiction had on her family: chaos. "It causes chaos," she said, "and disruption to family life that you can't predict or control." She had to learn how to remove herself from Sam's life on occasion, to protect herself, her wife, and her own health and well-being. Karey is not only a paramedic, but she's a business owner and a mother-to-be who is balancing her career, her business, and her family under very challenging circumstances.

Outside of the opioid crisis, Karey knows what it is like to be called to a low-acuity incident to provide care, when urgent care is needed somewhere else. But she also understands and experiences the same frustration some EMS providers have in the face of the staggering number of possible opioid overdose calls. She herself has had to respond to numerous overdose calls to the same house, to administer naloxone to the same person time and time again. She has heard the frustration voiced by other providers. But she also knows that those same patients are someone else's family, loved one, best friend, or sibling. She knows the people who need help are suffering from a disease, that their lives are no less valuable than someone who suffers an injury or illness not caused by addiction.

Sam is in recovery, but addiction is a powerful disease. Karey is prepared for the possibility that he will relapse and her life will change again. But she loves her job, and will continue to provide the best care for her patients. And she loves her family, including her brother, whose life she has—and would—save again.

MIEMSS thanks Karey for sharing her story. This article is based on an interview with Karey that took place in October 2017.

The Push HOPE Project: Jesse's Story

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nothing for granted; he knows that he could relapse on any given day. But Jesse has a mission now, which he believes will help him stay clean and sober, help other people who are addicted, and deliver the education to young Marylanders he felt was missing from his own youth. Jesse's organization is committed to making sure school-aged children, from 8th grade to high school seniors, know and understand that prescription opioid pills are closely related to illegal street drugs like heroin and are extremely dangerous when misused.

Despite the weariness of facing addiction, overdoses, and death each day, Maryland EMS providers are compassionate and resilient. All too often, EMS providers are the thin line between life and death for people struggling with the disease of addiction.

But these individuals deserve a chance to survive, and a chance to thrive.

"Don't give up on anyone," said Jesse during a recent interview. "It's tiring, it's frustrating, but you never know when they're going to get it," he continued, referring to the moment when an individual realizes they need help for their addiction. In a message to EMS providers, Jesse stated "I appreciate what you do fighting this epidemic on the front lines. It offers us another chance at life." And knowing that recovering addicts like Jesse can become positive and powerful forces in the fight to combat this crisis, it is well worth the effort put forth by Maryland EMS providers.

MIEMSS is grateful to Jesse Tomlin for sharing his story. This article is based on an interview with Jesse that took place in October 2017.

Help for Providers Struggling With Addiction

If you are an EMS provider struggling with addiction or the potential for addiction, there is help for you. Providing emergency care is a high-stress job, which elevates the risk for stress disorders, suicidal tendencies, and alcohol and/or drug abuse. If you are suffering from any of these problems, get help now. The State EMS Medical Director has compiled a list of resources for individual providers as well as EMS officials.

- The Behavioral Health Administration of the Maryland Department of Health (<https://bha.health.maryland.gov>) features a number of prevention and treatment resources for providers in Maryland.
- International Association of Fire Fighters members can access the organization's substance abuse recovery programs through www.iaffrecoverycenter.com.
- American Addiction Centers maintains resources specifically for first responders at americanaddictioncenters.org/firefighters-first-responders.

For EMS Operational Programs or individual EMS/fire companies, there is guidance available for identifying and managing responder substance abuse, and for providing help before addiction starts. You can download a variety of free informational flyers directly from the

Substance Abuse and Mental Health Services Administration website (www.samhsa.gov), including *Returning to Work: Tips for Disaster Responders*, *Identifying Substance Misuse in the Responder Community*, and *Helping Staff Manage Stress When Returning to Work*. These and other printable resources are available through the Publications tab from the homepage. For information on possible indicators or warning signs associated with substance abuse in first responders, click <https://store.samhsa.gov/shin/content/NMH05-0212/NMH05-0212.pdf> for a printable download to read and share.

Remember, Maryland's Crisis Hotline is available 24/7 to provide support, guidance, and assistance. Call 1-800-422-0009 for help. For more information on how the crisis hotline works and what services are provided, you can watch an explanatory video at <https://youtu.be/eVZDG8WZhFw>.

Combating the Myths: Is Acrylfentanyl Resistant to Naloxone?

The short answer: No. Acrylfentanyl and other fentanyl analogs such as carfentanil are all opioids with varied and potent respiratory depressant, sedation, and hypotensive properties. Naloxone is a "competitive inhibitor," which competitively displaces the fentanyl compound from the opioid receptors (mu, kappa, sigma). Therefore the more fentanyl that is present, or the presence of more potent fentanyl, will require larger or repeat doses of naloxone to displace the fentanyl

from the opioid receptors. Based on a July 7, 2017, White House Office of National Drug Control Policy teleconference with national subject matter experts, all opioids, including acrylfentanyl, will respond to naloxone. It is simply a matter of increasing the dose or delivering additional doses of naloxone to competitively displace the acrylfentanyl from the opioid receptors.

Statewide Data on Naloxone Administration

Through eMEDS®, the statewide electronic patient care reporting software, MIEMSS collects data on the number of patients who receive naloxone treatment for possible overdoses and, from that population, the number of patients transported to receiving facilities for further treatment and those who were not transported. Only partial data is available for 2015 and 2017; 2016 data represents the entire calendar year. The table below displays this information for each Maryland county and Baltimore City, as well as patients who were treated by Maryland EMS providers who crossed state lines to deliver care. Data marked as “unidentified” location represent records of naloxone administration for which a call location has yet to be determined. State and local health officials use this data to target areas of the greatest need for opioid addiction treatment and prevention.

Patients Receiving Naloxone Administration By Transport Outcome and Incident Time Period Source: eMEDS® Records

Scene Jurisdiction	2015 (July - Dec)	2016 (Jan - Dec)	2017 (Jan - June)	Grand Total
Allegany	94	240	111	445
Naloxone + No Transport	3	20	7	30
Naloxone + Transport	91	220	104	415
Anne Arundel	384	1,115	599	2,098
Naloxone + No Transport	53	137	69	259
Naloxone + Transport	331	978	530	1,839
Baltimore City	1,658	5,317	3,260	10,235
Naloxone + No Transport	349	1,684	1,233	3,266
Naloxone + Transport	1,309	3,633	2,027	6,969
Baltimore Co.	777	2,122	1,150	4,049
Naloxone + No Transport	51	207	154	412
Naloxone + Transport	726	1,915	996	3,637
Calvert	48	114	74	236
Naloxone + No Transport	11	24	11	46
Naloxone + Transport	37	90	63	190
Caroline	30	82	43	155
Naloxone + No Transport	4	13	6	23
Naloxone + Transport	26	69	37	132
Carroll	120	301	182	603
Naloxone + No Transport	17	57	37	111
Naloxone + Transport	103	244	145	492
Cecil	95	229	142	466
Naloxone + No Transport	27	71	51	149
Naloxone + Transport	68	158	91	317
Charles	83	235	116	434
Naloxone + No Transport	28	76	40	144
Naloxone + Transport	55	159	76	290
Dorchester	39	80	33	152
Naloxone + No Transport	4	4	5	13
Naloxone + Transport	35	76	28	139
Frederick	113	343	120	576
Naloxone + No Transport	12	55	23	90
Naloxone + Transport	101	288	97	486
Garrett	6	31	17	54
Naloxone + No Transport		6	5	11
Naloxone + Transport	6	25	12	43

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Statewide Data on Naloxone Administration

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Harford	239	432	247	918
Naloxone + No Transport	28	71	59	158
Naloxone + Transport	211	361	188	760
Howard	125	290	159	574
Naloxone + No Transport	18	39	21	78
Naloxone + Transport	107	251	138	496
Kent	13	34	10	57
Naloxone + No Transport	1	5	2	8
Naloxone + Transport	12	29	8	49
Montgomery	177	504	228	909
Naloxone + No Transport	12	54	17	83
Naloxone + Transport	165	450	211	826
Prince George's	245	706	447	1,398
Naloxone + No Transport	29	131	92	252
Naloxone + Transport	216	575	355	1,146
Queen Anne's	32	68	33	133
Naloxone + No Transport	4	17	9	30
Naloxone + Transport	28	51	24	103
Somerset	24	47	20	91
Naloxone + No Transport	1	3	1	5
Naloxone + Transport	23	44	19	86
St. Mary's	42	90	108	240
Naloxone + No Transport	9	10	20	39
Naloxone + Transport	33	80	88	201
Talbot	18	43	22	83
Naloxone + No Transport	1	7	3	11
Naloxone + Transport	17	36	19	72
Washington	166	386	207	759
Naloxone + No Transport	16	49	30	95
Naloxone + Transport	150	337	177	664
Wicomico	64	238	82	384
Naloxone + No Transport	1	14	9	24
Naloxone + Transport	63	224	73	360
Worcester	38	68	35	141
Naloxone + No Transport	1	1	5	7
Naloxone + Transport	37	67	30	134
Out-Of-State	22	42	24	88
Naloxone + No Transport	6	4	2	12
Naloxone + Transport	16	38	22	76
Unidentified	1	2	2	5
Naloxone + No Transport			1	1
Naloxone + Transport	1	2	1	4
Grand Total	4,653	13,159	7,471	25,283
Naloxone + No Transport	686	2,759	1,912	5,357
Naloxone + Transport	3,967	10,400	5,559	19,926



Medication Safety – Keeping Children Safe From Opioids and Other Pharmaceuticals at Home

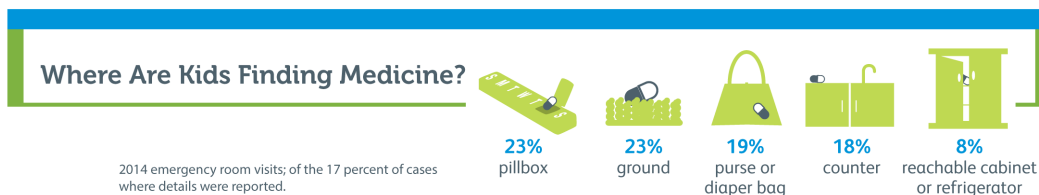
Medication safety at home is not just an issue for March's Poison Prevention Week; keeping medications up and away from children is a 365-days-a-year responsibility. Safe Kids Worldwide has reported for the past three years that 60,000 children annually are seen in emergency departments because they found and ingested medications—most often those meant for adults. That amounts to four busloads of children daily or a call to a poison center almost every minute of every day.

A 2017 medication study and literature review conducted by Safe Kids Worldwide highlighted that parental perception of risk and the reality of what children can and will do are very different. Parents believe that putting medications up on counters and watching children closely is prevention enough. But data from national poison centers document that in about half of the reported cases children moved a chair, toy, or other object to reach a medication left “just out of reach.” Children move quickly and learn new skills daily. Many parents who bring their child to an emergency department for non-intentional medical ingestion report only looking or stepping away “for a minute.”



Combined with childhood curiosity, medications in sight, plus lack of locked storage, plus the number of prescription/over-the-counter/illicit drugs available in homes today equal as many as 440,000 calls to poison control centers annually. Prevention is key, and these simple steps can be taken to make a home a safer place for children of all ages:

- Store all medications (prescription and over-the-counter), vitamins, and supplements up and away and out of sight and reach AT ALL TIMES.
- Keep medicine in its original child-resistant packaging. The label has important information for appropriate dosing and what to do if the child opens it and ingests the medication.
- Keep family members' and visitors' purses, bags, and coats out of the reach of kids, as they may contain medicine.
- Instead of keeping medicine within reach and handy, use safe reminder tools to help you remember when to take doses, and to make sure the right amount of medicine is taken. Charts are available from www.safekids.org. Digital calendar reminders and smart phone apps can also help.
- If you are administering medication to someone else, use a medication schedule to make sure you give the right amount of medicine at the right time.
- Put the poison help number (1-800-222-1222) into your phone and post it visibly at home.



There are more resources available for parents and caregivers to ensure medication safety at home. The Maryland Poison Center has educational materials for both health care providers and the public. The March/April 2016 issue of the Poison Prevention Press focused on the reality of child-resistant (not child-proof) medication containers. Subscribe to Poison Prevention Press and read past issues at www.mdpoison.com. Public educational materials can be ordered online from the Maryland Poison Center and downloaded from Safe Kids at www.safekids.org under the “Our Work At Home” tab. The Centers for Disease Control and Prevention has also launched a prevention campaign, “Up and Away, Out of Sight,” and has additional educational materials at www.upandaway.org.

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Governor Larry Hogan
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