

Bureau of Justice Assistance (BJA)  
Comprehensive Opioid, Stimulant, and Substance Abuse Program (COSSAP)

# State Emergency Medical Services Offices Respond to the Opioid Epidemic

March 2023

By the National Association of State EMS Officials (NASEMSO)

Emergency medical services (EMS) providers<sup>1</sup> have been responding to life-threatening opioid overdoses with naloxone and resuscitation efforts for decades, long before naloxone became well known among first responders and the opioid use disorder communities as the antidote to opioid overdoses. The record-breaking rise in the number of overdoses in recent years has ignited efforts to develop new approaches to stopping the epidemic before more victims fall prey to it. Immediate access to naloxone is an important part of the equation to save lives, as are other harm reduction strategies. And while the administration of naloxone can be lifesaving during an overdose event, additional strategies are necessary to prevent repeat events and help individuals manage their substance use disorder (SUD). This article outlines several approaches undertaken by state EMS offices<sup>2</sup> in collaboration with local EMS agencies (ambulance services) to address the problem at its core. The projects described herein are a sampling of the various ways in which EMS, particularly state EMS offices, have approached the challenges of opioids and SUDs. The examples listed are not meant to be all-inclusive of the variety of efforts undertaken nationwide.

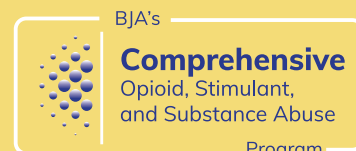
The projects are grouped under the following categories:

1. Naloxone Leave Behind Programs
2. EMS Data for Surveillance and Response
3. Community Paramedic and Medication-assisted Treatment Programs
4. Training and Support for EMS Providers
5. Statewide Overdose System of Care

1

## Naloxone Leave Behind Programs

**Background:** With opioid overdoses becoming increasingly fatal, one strategy has been to get naloxone into the hands of those most likely to experience or witness an overdose. More EMS agencies have realized the value of leaving extra doses of naloxone with those they have rescued from overdoses, as well as instructions for recognizing an overdose and how to use naloxone. This practice has become more customary with the development of easy-to-use nasal administration devices and the relaxation of prescribing restrictions. Societal attitudes toward SUD have changed, and grant funding has made it possible to purchase and distribute naloxone.



## Michigan—EMS Naloxone Leave Behind Program

Michigan Department of Health and Human Services/  
Bureau of Emergency Medical Services, Trauma, and  
Preparedness

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In 2020, Michigan's Naloxone Leave Behind Program was initiated in response to two trends identified at the beginning of the COVID-19 pandemic: a notable increase in the number of EMS responses to opioid-related emergencies and a decrease in the number of EMS patients transported to an emergency department for treatment. EMS protocols and education were developed and implemented, allowing EMS providers to leave a naloxone kit with a patient, family member, or other bystander known to the patient, regardless of the patient's transport decision. Prior to participating in the state's program, EMS providers must complete a one-hour education session to learn about the program and its protocols, acceptance of opioid use disorder (OUD) and other SUDs as a chronic disease, and the stigma that surrounds OUD and SUD.

In the first 18 months of this program, more than 6,000 EMS providers completed the Naloxone Leave Behind/OUD education modules. Approximately 4,000 naloxone leave behind kits were ordered to supply licensed EMS vehicles. Local EMS agencies in the Michigan EMS system are overseen by 59 medical control authorities, designated by geographic area. As of 2022, 24 of the 59 medical control authorities participate in the Naloxone Leave Behind Program. The Bureau of Emergency Medical Services is currently working with Vital Strategies, a global public health organization, to evaluate the program. This comprehensive evaluation will look at data on nonfatal and fatal opioid-related deaths, along with information on race, age, and gender, for possible disparities within these populations.

## Delaware—First Responder Naloxone Leave Behind Program

Delaware Division of Public Health/Office of  
Emergency Medical Services and the Office of Health  
Crisis Response

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This program was created in 2020 to allow eligible Delaware first responder agencies (EMS and law enforcement agencies) to leave a naloxone kit at the scene where an individual is at high risk for an opioid-related overdose and provide training on how to use it. It is designed for patients who have been revived from an opioid overdose and refuse to be transported to a hospital emergency department. If the patient is transported, a separate program offers a naloxone kit and training in the emergency department. A naloxone kit may be left directly with the patient or with those individuals who are likely to be present for, and willing to intervene during, an overdose.

As there are only three counties in Delaware, most of the population is covered by the agencies presently participating in the program, including the three countywide advanced life support ambulance services and 17 law enforcement agencies. Several more agencies are currently being onboarded. In 2021, 43 naloxone kits were left behind; in the first 6 months of 2022, the number increased to 106 kits.

## Vermont—Naloxone Leave Behind Kit Program

Vermont Department of Health/Emergency  
Preparedness, EMS and Injury Prevention

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The Vermont Naloxone Leave Behind Kit Program was created to allow EMS providers (transporting and non-transporting agencies) to provide naloxone as well as overdose prevention and training information to overdose patients, their families, and bystanders. Vermont has 13

EMS districts with 3,000 EMS providers and 168 EMS agencies, all of which participate in the program. In the first year (2021), EMS providers left 221 naloxone kits during 194 EMS calls. In 2022, the program was expanded to law enforcement. In addition, the health department has partnered with a growing number of community-based organizations to distribute overdose rescue kits containing naloxone to ensure that any individual who may have the opportunity to intervene with an opioid overdose can get naloxone as well as prevention and overdose response training.

## Rhode Island—First Responder Project to Combat Opioid Overdose

Rhode Island Department of Health/Center for Emergency Medical Services

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Since its inception in 2018, the First Responder Project to Combat Opioid Overdose in Rhode Island has utilized a multidisciplinary approach to engage first responders in training for naloxone administration and overdose response, increase overdose reversals through naloxone administration, and improve patient referrals and enrollment in substance misuse counseling and treatment programs. The program focuses on naloxone training and reporting; collaborative efforts to improve informatics (the science of how to use data, information, and knowledge to improve human health and the delivery of health care services); and expanded naloxone distribution to high-risk populations.

In conjunction with the Rhode Island Department of Health's Drug Overdose Prevention Program, the state's Center for Emergency Medical Services has helped establish 31 Safe Stations (available 24 hours a day, 7 days a week, providing connections to treatment, services, and naloxone) in 5 cities and 1 town. The center has established naloxone leave behind programs, which include "Naloxboxes," mountable containers that contain naloxone and all the necessary lifesaving supplies to reverse a suspected overdose.

In 2021, EMS practitioners responded to and transported 1,822 individuals in nonfatal opioid overdose-related emergencies, left behind more than 2,000 naloxone kits, and made more than 670 referrals to mental health and opioid use treatment and recovery services. In partnership with street outreach teams, the Rhode Island Center for Emergency Medical Services reviews data from the Rhode Island Emergency Medical Services Information System (RI-EMSIS) to identify and track statewide EMS runs in response to opioid overdoses. These data detect patterns and clusters of suspected opioid overdoses throughout the state, enabling the center to identify areas where team members should congregate to reduce overdose rates.

2

## EMS Data for Surveillance and Response

**Background:** Accurate and complete data are key to addressing almost any problem, and the opioid crisis is no exception. Fortunately, the EMS community is no stranger to collecting and reporting data, and its contributions in this arena have been crucial to understanding and responding to the overdose problem. Since the National EMS Information System (NEMSIS), a national repository of EMS data, was established in the early 2000s, state EMS offices across the nation have been working diligently to develop and refine their statewide data collection systems and transmit uniform de-identified patient data to NEMSIS. As of 2022, all 50 state EMS offices are transmitting data on EMS incidents to NEMSIS. More important, the state EMS offices use their data to address a myriad of health-related concerns in their local or state systems. This information has been invaluable in responding to the overdose crisis.

Many state EMS offices (16 as of August 2022) are now transmitting their EMS overdose data to the Overdose Detection Mapping Application Program (ODMAP) via an application program interface. ODMAP is a free, web-based, mobile-friendly software platform designed to support reporting and surveillance of suspected fatal and nonfatal overdoses. ODMAP was launched in 2017 by

the Washington, D.C./Baltimore, Maryland, High Intensity Drug Trafficking Area (HIDTA). ODMAP data are controlled unclassified information and may only be released to authorized personnel. Those with access to these data utilize them in the performance of their criminal justice and public health functions.

Below is a brief overview of how a few states are using their EMS data on overdoses to tackle the opioid crisis.

## **New Jersey—Public Overdose Data Dashboard**

New Jersey Department of Health/Office of Emergency Medical Services

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The purpose of the Public Overdose Data Dashboard is to make opioid- and other drug-related overdose indicators available for public health practitioners, researchers, policymakers, and the public. The New Jersey Office of Emergency Medical Services displays naloxone administration data by EMS and law enforcement agencies throughout the state on the dashboard. Naloxone administration data displayed include incident information by city, county, and zip code; patient demographics (age, gender, race); monthly trends; patient disposition; and incidents by day and hour. An incident is defined on the dashboard as a patient who received at least one dose of naloxone in one encounter by EMS or law enforcement. Nonidentifiable patient data are also available on various dashboards related to the prescription monitoring program, drug-related hospital visits, drug-related deaths, drug treatment statistics, viral hepatitis, and neonatal abstinence syndrome. In a 6-month period (March through August 2022), there were 864 views of the data dashboard.

## **New Jersey—Local Health Department Naloxone Dashboard**

New Jersey Department of Health/Office of Emergency Medical Services

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The purpose of the Local Health Department (LHD) Naloxone Dashboard is to better integrate state and local overdose prevention efforts. The goal of the project is to provide timely EMS naloxone administration data to localities by automatically tapping into the EMS central data repository. By having access to these timely data, localities can help communities prepare for and be more responsive to overdoses. The LHD Naloxone Dashboard is a login-based system that provides near-real-time naloxone administration data by first responders in all New Jersey localities. The dashboard displays a variety of interactive graphs showing scene information, de-identified patient information, medication information, disposition information, and transport destination information. The system also sends alerts via email and/or text message when naloxone administrations exceed predetermined thresholds that are in place for each county. Thresholds are determined based on the average number of administrations that occurred in the year prior. Since its inception in 2019, 17 of New Jersey's 21 counties have obtained access to the system.

## **Michigan—Overdose Syndromic Surveillance**

Michigan Department of Health and Human Services/Bureau of Emergency Medical Services, Trauma, and Preparedness

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The Michigan Overdose Surveillance Team uses EMS incident data submitted by all local EMS agencies to the Bureau of Emergency Medical Services. The surveillance team is composed of one or more epidemiologists from the department's Opioids and Emerging Drugs Unit, working

with the EMS opioid outreach coordinator. More than 70 percent of EMS agencies in Michigan submit data within 24 hours of an incident, which makes surveillance in near-real time extremely effective. Abnormal increases in daily EMS responses to opioid-related emergencies and anomalous events, such as multiple patients at a single incident, are monitored, and the surveillance team receives alerts through a specialized platform utilizing EMS data. These alerts allow the surveillance team to notify local or regional public safety and public health stakeholders to better prepare the community and first responders for additional incidents that may occur.

### 3 Community Paramedic and Medication-assisted Treatment Programs

**Background:** Community paramedic programs (also known as mobile integrated health care) are an extension of an existing EMS agency. While becoming more common, they are not standard in most ambulance services. With their specialized training in chronic disease management, community paramedics focus on improving quality of life for patients while reducing emergency department visits and ambulance transports. They provide services not previously seen in EMS, such as medical clearance in the field, diversion from an emergency department to appropriate facilities, and expanded protocols with the ability to treat many illnesses in the home. With the recent increase in the number of individuals with diagnosed SUDs and the escalating number of overdoses, some community paramedic programs have expanded their responsibilities to address the severely debilitating disease of addiction. With the recent relaxation in requirements related to medications for opioid use disorder (MOUD), some paramedic programs are beginning to administer suboxone or buprenorphine in the field. This practice is expected to grow as resources become available and successes are demonstrated.

## New Jersey—Buprenorphine Administration by Paramedics

New Jersey Department of Health/Office of Emergency Medical Services

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After naloxone administration, many patients suffer from withdrawal symptoms, which can include sweating, chills, nausea, and vomiting and can also be life-threatening. Buprenorphine is an oral prescription medication used to address those symptoms and, until recently, had to be prescribed by physicians who have received special training in the administration of MOUD. Through a groundbreaking program as part of Cooper University Hospital's EMS Education Programs in Camden, New Jersey, paramedics are authorized to administer buprenorphine to patients in the field if the patient agrees to seek treatment for SUD. The purpose of the buprenorphine program is to reduce barriers to entering treatment by relieving some of the withdrawal symptoms patients feel between naloxone administration and the start of treatment. New Jersey was the first state to allow paramedics to administer buprenorphine to patients. The Cooper University Hospital EMS program has served as a model for other EMS agencies exploring and implementing administration of buprenorphine in the field.

In the first 3 years since the program's inception in August 2019, there were 174 administrations of buprenorphine by paramedics trained through the Camden program. While Camden's population is 77,000 people, the program serves a wider audience, and only 78 of the 174 patients served were Camden residents. Approximately 35 percent of patients made it to their first appointment at the treatment clinic after receiving buprenorphine from paramedics. After 30 days, 23 percent were still active in the treatment program.



## South Carolina—Community Outreach Paramedic Education (COPE)

South Carolina Department of Health and Environmental Control/Bureau of Public Health/  
Division of Emergency Medical Services Research and Overdose Prevention

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The purpose of the program is to promote long-term recovery of persons with SUD through immediate follow-up after an overdose by a Community Outreach Paramedic Education (COPE) team. COPE teams are composed of a community paramedic, a peer support specialist or professional addiction counselor, and often a law enforcement officer. The goal is to visit an overdose survivor, typically within 72 hours of the overdose event, to provide educational materials and a “warm handoff” to drug treatment and peer support. The team uses referrals from EMS or hospitals to identify overdose survivors. The specially trained community paramedic performs a wellness check on the individual, while the peer support specialist typically takes the lead in providing recovery support resources. The COPE team can also meet with family or friends of the overdose survivor to help connect them to support. The program uses harm reduction strategies, and team members tailor their outreach to the individual needs of the overdose survivor.

COPE can be particularly useful in rural areas where EMS is the closest link to medical treatment. Because paramedics are in short supply in rural areas, the South Carolina Bureau of Emergency Medical Services recently hired a COPE paramedic to work from the state central office and help fill that gap.

Since the program launched in 2019, 31 paramedics in 7 counties have been trained for COPE teams. In the first 3.5 years, 1,614 visits have been completed, with the numbers increasing each year as follows: 163 visits in 2019; 249 visits in 2020; 623 visits in 2021; and 579 visits through August 2022. A visit is considered successful if the COPE

team meets with the client in person, gives the client harm reduction information and materials, and connects the client and a treatment provider.

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## Training and Support for EMS Providers

**Background:** EMS providers are proficient in providing emergency care to address the physical needs of patients but typically have little to no formal education on mental health or SUD. With the explosion of the overdose crisis, EMS providers have been responding to increasing numbers of patients requiring resuscitation from an overdose, and some patients on a repeat basis. This frequent exposure can lead to “compassion fatigue,” especially if the EMS provider does not understand the nature of SUD as a chronic disease. It is not unusual for EMS providers to feel helpless and cynical when they reverse an opioid overdose but the patient refuses to be transported for further medical treatment. They often do not have the knowledge or skills to encourage the overdose patient to seek treatment. To address this concern, a variety of courses have been developed to educate the provider, including one program by the New Jersey Office of Emergency Medical Services.

## New Jersey—“Five Minutes to Help” Training for EMS Providers

New Jersey Department of Health/Office of Emergency Medical Services

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New Jersey, like most other states, records a high percentage (up to 50 percent in some cases) of revived overdose patients who refuse ambulance transport to the hospital or, if transported, leave before being seen by a health care provider. While EMS providers are historically trained to treat a patient’s physical symptoms, there is limited training available for EMS providers to address the mental health needs of patients who overdose and suffer from SUD. The purpose of Five Minutes to Help is to better equip EMS providers with the understanding

and knowledge to address the stigma surrounding SUD and mental health conditions. Without this understanding, EMS providers are more likely to succumb to burnout and impatience with overdose victims, whom they may perceive as being unwilling to help themselves. In this 4-hour training, participants learn that SUD is a chronic illness that is preventable and treatable. They also learn how to use person-first language, what the stages of behavior change are, and how to describe different types of SUD treatment and other supports, such as peer recovery and harm reduction resources. Participants can try motivational interviewing through role-playing exercises to practice communicating with patients and connecting them to various types of SUD resources.

In addition to the 4-hour training, there is an 8-hour instructor-level training to teach EMS providers how to teach the Five Minutes to Help approach to other EMS providers and a 1-hour introductory video and post-test that is self-guided and available 24/7 that participants can watch prior to taking either of the live classes.

Since the program's inception in 2019, 150 instructors have been trained and more than 600 people have completed the training. Between June 2021 and June 2022, there was a 250 percent increase in the number of classes taught. In completed course evaluations, 90 percent of participants in the program agreed or strongly agreed that they understood how to apply basic motivational interviewing techniques and 91 percent agreed or strongly agreed that they had a better understanding of the stigma associated with SUD.

## 5 Statewide Overdose System of Care

**Background:** A state system of care is an organized approach to patient management throughout the continuum of care statewide. Focused on a specified acute health condition or population, the system is designed to coordinate care beginning with prehospital transport and interfacility transfer, based on the patient's needs and

the hospital resources that are available. The first system of care developed that people working in the health care field are most familiar with is the statewide trauma system. Trauma systems of care exist in all 50 states and are generally organized around hospitals that are designated at different levels based on EMS transport protocols and their ability to treat traumatic injuries. State systems of care are meant to be comprehensive, create long-term solutions, involve multiple entities, and require extensive planning, coordination, and time to develop and maintain.

### Delaware—Overdose System of Care

Delaware Department of Health/Office of Emergency Medical Services

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Perhaps the most novel and comprehensive approach to addressing the overdose epidemic is the statewide overdose system of care (OSOC) currently being developed by the Delaware Department of Health. Delaware was ranked as third highest among states in per capita overdoses (after West Virginia and Kentucky) when policymakers developed the proposed system, which no other state has done. After legislation was enacted in 2018, the Delaware Office of Emergency Medical Services partnered with the Office of Health Crisis Response, Division of Substance Abuse and Mental Health, and Health Management Associates to develop the OSOC into a system modeled after their other statewide systems of care. An oversight committee was created in 2019 to establish a structured and universal OSOC to improve the care, treatment, and survival rates of overdose patients in Delaware. This included fully implementing the first responder, hospital, and correctional institution naloxone leave behind programs; establishing stabilization centers; and expanding existing data systems and tools. After a delay caused by the COVID-19 pandemic, a strategic plan was developed in 2021 and subcommittees were established and began meeting in 2022. Delaware's OSOC is in its infancy but could lead to a new long-term strategy if it proves to be effective in addressing the overdose crisis.

## Conclusion

This document is intended to briefly describe a sampling of projects undertaken by state EMS offices to address the overdose epidemic. While EMS offices are often considered to be primarily regulatory agencies within state governments, they play an important role in developing programs to help their states' EMS systems respond to public health and safety challenges. The overdose crisis, which shows no signs of slowing, is one of those challenges. Accordingly, state EMS officials will continue to respond with statewide programs meant to address the problems faced by patients and EMS providers.

For more information about this document or NASEMSO's activity in response to the overdose crisis, please contact Mary Hedges at [hedges@nasemso.org](mailto:hedges@nasemso.org).

NASEMSO is a partner of Treatment Alternatives for Safe Communities' (TASC) Center for Health and Justice (CHJ).

## Endnotes

1. EMS providers or EMS clinicians refer to emergency medical technicians (EMTs) and paramedics.
2. "State EMS office" refers to the agency in state government responsible for overseeing the EMS system in its respective state, including, at a minimum, the licensing of EMS agencies (ambulance services), paramedics, and EMTs. State EMS offices are most frequently part of the state health department but may also be found in the state public safety department or as a stand-alone state agency.

Visit the COSSAP Resource Center at [www.cossapresources.org](http://www.cossapresources.org).

Visit the National Association of State EMS Officials at <https://nasemso.org/>.

## About TASC's Center for Health and Justice (CHJ)

CHJ helps COSSAP grantees implement evidence-based, systemic solutions at the front end of the justice system to respond to the substance use that often underlies criminal justice involvement. CHJ helps build integrated criminal justice, behavioral health, and community systems by assisting first responders in developing pathways to treatment for individuals at risk for illicit substance use and misuse. CHJ offers online resources and in-person training and technical assistance (TTA) engagements customized to the needs of specific jurisdictions with the goals of connecting and maximizing the treatment resources of the community to improve public health and safety. Request TTA from CHJ by contacting the COSSAP Project Lead, Hope Fiori, at [hfiori@tasc.org](mailto:hfiori@tasc.org).

## About BJA

The Bureau of Justice Assistance (BJA) provides leadership and services in grant administration and criminal justice policy development to support local, state, and tribal law enforcement in achieving safer communities. To learn more about BJA, visit [www.bja.gov](http://www.bja.gov) and follow us on Facebook ([www.facebook.com/DOJBJA](http://www.facebook.com/DOJBJA)) and Twitter (@DOJBJA). BJA is part of the U.S. Department of Justice's Office of Justice Programs.

This work was supported by a grant from the Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice. The points of view in this document are those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice.