SAVING THOSE WHO SAVE OTHERS

Strengthening Mental Health Services for EMS Personnel

NEW YORK MEDICAL COLLEGE
A MEMBER OF TOURO UNIVERSITY
School of Health Sciences and Practice

NYMC Public Health Capstone
Spring 2024

Authors: Rafia Chodhry, Abby Cofsky, Grace Longhi, Desiree Murphy, Samuel Prince, Noelani Randazzo, Lillian Shmauel, Jaskunwar Singh & Maribel Vargas

New York Medical College Advisors: Dr. Nisha Beharie, Dr. Emily Kaplan & Dr. Michael Shakarjian

Developed for the New York State Department of Health (NYSODH) Bureau of Emergency Medical Services (BEMS)

Table of Contents

Table of Figures

SECTION I: INTRODUCTION

About

This guide is a collaborative effort between New York Medical College Public Health graduate students and the New York State Department of Health Bureau of EMS. It is intended for distribution and use among EMS agencies within New York State to serve as well-researched guidance for the implementation of mental health services for EMS personnel.

Purpose

The current systems in place for mental/behavioral health services among EMS providers within New York are not enough. EMS providers experience unique job-related stressors and hazards that can negatively impact both their physical and mental health. Roughly 30% of first responders develop behavioral health conditions including, but not limited to, depression, anxiety, substance use disorder and posttraumatic stress disorder (PTSD), compared to the 20 percent in the general population (SAMHSA, 2018). Sadly, it is apparent through both research and personal experiences that EMS providers are also more likely to attempt suicide than the general population. There are clear gaps in the current systems in place that must be addressed.

This guide is comprehensive and is comprised of three parts:

1. Guidance for administering mental health services among your EMS agency
2. Guidance for creating and implementing a Peer-to-Peer program within your EMS agency (Peer-to-Peer programs within first responder agencies have shown promising results)
3. A Postvention Planning Template for agency support in the event of an untimely service member death

The following information is intended to serve as a foundation for improving the mental health and wellbeing of service members within your agency. The guidelines provided are tools for creating a unique program within your agency and are designed to be built upon and adapted.

EMS History

In case of an emergency, first responders are the ones who will act to save people's lives and reduce the damage as fast as possible. First responders are Police Officers, Firefighters, Emergency Medical Technicians, and Paramedics (Kshtriya et al., 2020). Caregivers, however, have typically been the ones to transport and take care of sick or injured people during wars or natural disasters. In the 1850s, women were more prominent in this role due to the American Civil War, and they have helped during other wars and pandemics. Some of the women's caregiving roles were helping to keep medical records, dealing with mass casualties, and supporting rapid treatment for wounds and fractures following orders from doctors (Hallett &

Schultz, 2015). Also, during the 1860s, horse-drawn carriages used as ambulances became more popular to transport the injured from one point to another. The vehicles later became motor vehicles and brought first aid supplies to help during transport-time. In the beginning of the 20th Century, common first aid kits included tourniquets, anesthesia, and Thomas splints for fractures; they later included mobile X-rays (Hallett & Schultz, 2015; Rutkow & Rutkow, 2004).

The beginning of the Emergency Medical System (EMS) came from an organized system to treat, and transport injured French soldiers originally developed by Jean Dominique Larrey, Napoleon's chief physician. Supporting injured people in battles was a common practice throughout Napoleon's time (Pozner et al., 2004).

In 1964, President Lyndon Johnson announced that "two thirds of Americans now living will… suffer or die from heart disease, cancer or strokes" (Shah, 2006). Congressional leaders recognized a rapid growth of financial costs due to medical trauma. One of the stroke and heart disease reports recommended creating Regional Medical Programs (RMPs) to work with associations and improve research, education, and patient care. As a result, RMPs helped to create and train EMS systems by providing extensive medical support. In addition, RMPs reorganized agencies from local to regional. Unfortunately, the funding came through grants, not federal funding. This caused the program to be dismantled by President Nixon in 1974 (NIH, 2024).

With the local response from physicians, hospitals, firefighters, government officials, and other entrepreneurs, EMS services were developing in a disorganized manner. No consistent training was offered, individual states had different rules, and the quality of care varied. In 1966, a report from the National Academy of Sciences National Research Council titled "Accidental Death and Disability: The Neglected Disease of Modern Society" emphasized the importance of adequate emergency care (Howard, 2000). Shah mentioned that "EMS-related inadequacies included: (1) no treatment protocols; (2) few trained medical personnel; (3) inefficient transportation; (4) lack of modem communications and equipment; (5) the abdication of responsibility by political authorities; and (6) the lack of research evaluating prehospital care" (2006).

In 1965, the Department of Transportation was established to make traffic more efficient and reduce traffic accidents and fatalities, and this was beneficial to EMS. The Department of Transportation did not consider EMS to be a medical service, but as a transportation service (Shah, 2006).

The American Heart Association and the Red Cross excluded EMS providers from practicing cardiopulmonary resuscitation, defibrillation cardioversion and new pharmaceutical

therapies at the beginning. Then, they were incorporated, and the mortality rate decreased by 50% (Eisenberg & Psaty, 2010).

During the 1930s and 1940s, comments about improving public health were found in the Committee on the Cost of Medicare Care Report titled, “New Deal Programs — Social Security Act of 1935.” The increasing interest in public health was progressing in the 1950s, 1960s, and 1970s, having an impact on legislation and funding. A research report was conducted by the National Academy of Science, and they reported that the government was “insensitive to the magnitude of the problem of accidental death and injury” in the US. As a result, the National Highway Traffic Safety Administration (NHTSA) created the first qualified ambulance service and personnel in the US in 1966 (Gaston, 1971).

Eventually, a change in the EMS model shifted from injury control to infection control, identifying causes, mitigating damage, and improving emergency care. However, political tensions at federal, state, and local levels hindered EMS development; it was not a transport service anymore, it was now a medical service. However, average citizens realized the importance of EMS due to the 1971 television show “Emergency,” which showed EMS members managing complex situations and saving patients. The job description for EMS workers was standardized during this time; it included 400 hours of class, lab, and clinical rotations, along with 100 hours of internship in health systems. (Shah, 2006).

In 1972, the Department of Health, Education, and Welfare funded EMS programs in several regions. However, in 1973, the EMS programs were dissolved. The same year, the Robert Wood Johnson foundation invested $15 million in various EMS projects, such as new technology and interagency coordination. Senators Cranston, Kennedy, and others remarked on the importance of health services to reduce mortality. Some issues related to inadequate vehicles, lack of training, and no coordination between agencies were included in the “Accidental Death and Disability: The Neglected disease of Modern Society” report in 1966. EMS was unfavorably compared with other international services. (Shah, 2006).

The Highway Safety Act from 1973 designated the development of the EMS as part of the federal government’s Department of Health, Education, and Welfare. EMS organizations were able to request grants (with no long-term commitment from federal agencies), create interconnected regional systems, and use technology to provide intensive medical care. During the 1970s, federal funding decreased to support EMS services from a previous budget from $1,012,411 in 1969-1970 to $868,032 in 1970-1971 (DOH, 1970), and EMS’s role was limited to providing technical assistance and limited coordination at the local level.

Due to a lack of resources, training and investment in technology was difficult for EMS. For example, in pediatrics, new techniques are needed because they did not exist. In 1984,

legislation was passed to train EMS members to support pediatric and geriatric populations. Due to the variability in treatment in pre-hospital care, an agreement for four years was awarded to the National Association of State EMS Officials (NASEMSO). The objective was to create a model to improve prehospital care, and the final document with recommendations of development, implementation, and evaluation of the model was published in 2016 (Sholl et al., 2016).

The EMS1 round table was created in 2007 to join efforts with the public health services. The objective was promoting and developing strategies to integrate EMS in the infrastructure of public health with different stakeholders like paramedics, EMTs, EMS students, and leadership (EMS1, 2024). Some barriers were related to lack of national data. Decentralization of EMS agencies impede efforts to collect national standardized data so that the government can respond in a more efficient way to public threats and coordinate responses to national threats like terrorism, bioterrorism, and epidemics (Shah, 2006). There is an EMS people-centered system agenda for 2050, published in 2019 by the U.S Department of Transportation (DOT) and the National Highway Traffic Safety Administration (NHTSA) in the interest of information exchange between agencies, and it has six main guiding principles (1. Socially Equitable, 2. Reliability and preparedness, 3. Adaptable and innovative, 4. Sustainable and efficient, 5. Integrated and seamless, and 6. Inherently safe) to serve the needs of patients and families (EMS Agenda 2050, 2024).

The first responder system is organized in the following way: First, a call is made by a person who dialed 9-1-1 with an emergency or incident. Then, the operator will dispatch local services to the scene. Lastly, local services will arrive at the scene, and they will coordinate efforts to support the best response. Depending on the location of the incident, local jurisdictions may use their own enforcement agencies like fire departments and/or EMS to assist the response. The payment method is not standardized. Some services are paid for by tax revenues and federal grants, and others are locally funded and self-controlled. Services are provided by a combination of staff (public employees, private for-profit, or non-profit) and volunteers. Most of the time, local agencies can manage the incidents. If this is not possible, neighboring (local), state, and federal organizations will assist in managing the response (EMS, 2024).

EMS Statistics

To understand Emergency Medical Services, it is important to understand how it was formed. A national report was published in 2021 by the National Emergency Medical Services Information System (NEMSIS), supported by the National Highway Traffic Safety Administration (NHTSA) and the Office of Emergency Services (OEMS), the report contained statistics about the EMS services nationwide from the public medical care database from prehospital medical care.

EMS by Region

Healthcare resources are important to determine who will provide what services and when. The logistics per region need to be planned (urban, suburban, rural, or wilderness). According to the services requested per area, the resources should be allocated to satisfy the demand per location (number of ambulances, number of call centers, response time, number of accidents, hospitals, etc.). As we can see in Figure 1: EMS Activation by State in 2021, EMS is divided into nine regions and color coded. The South Atlantic (dark blue) is the most active region with almost 26% of emergency calls, followed by the East North Central (dark green) with 14%. There was another study that found that reducing the crew's mobilization time and increasing the speed was effective. The authors of the study also remarked on the importance of identifying the shortages and coverage of catchment areas, including rural and urban areas (Lee et al., 2021).

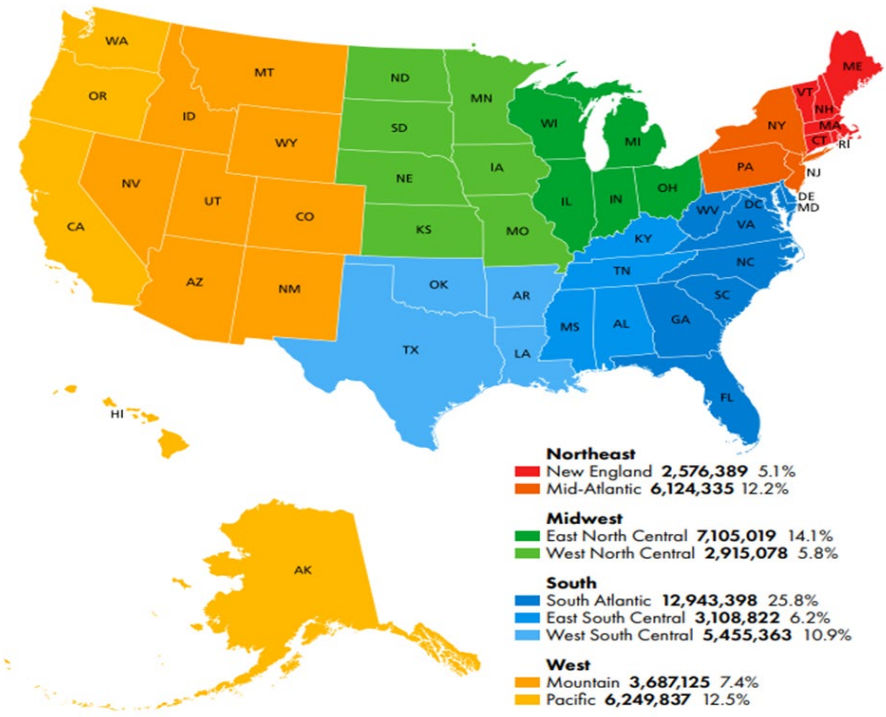


Figure 1: EMS Activation by State in 2021

Source: 2021 National EMS Data Report. https://nemsis.org/2021-nemsis-national-ems-data-report/

Types of EMS Locations

Another important aspect of EMS is related to the location of the services provided. As we can see on Figure 2: Location of Incidents responded by EMS, 86% of services provided by EMS are in urban areas. However, EMS services are needed in all areas.

Urbanicity	Count of Events	Percent of Total
Urban	42,014,375	86%
Rural	3,156,432	6%
Suburban	2,885,378	6%
Wilderness	755,852	2%
TOTAL	48,812,037	100%

Figure 2: Location of Incidents responded by EMS

Source: 2021 National EMS Data Report. https://nemsis.org/2021-nemsis-national-ems-data-report/

Types of EMS Personnel

According to nationally reported information, the composition of EMS is on average 80% paid staff, 18.2% mixed part-time volunteers and staff, and 1.7% volunteers, as we can see on Figure 3: EMS Agency Organizational Status in the U.S., 2021. Some of the reasons why EMS personnel leave their jobs at EMS agencies are related to the need for better payment, more benefits, and career advancement opportunities (Rivard et al., 2020).

Organizational Status	Count of Events	Percent of Total
Non-Volunteer	40,185,988	80.0%
Mixed	9,138,249	18.2%
Volunteer	868,638	1.7%
TOTAL	50,192,875	100%

Figure 3: EMS Agency Organizational Status in the U.S., 2021.

Source: 2021 National EMS Data Report. https://nemsis.org/2021-nemsis-national-ems-data-report/

EMS Population Served

Understanding the distribution of the population is important for providing medical services required by age group in the US. Different resources and policies need to be planned to be ready to serve each group. As we can see in Figure 4: Average Age of Patients Support Nationally in 2021, the highest number of services are provided for people who are in their 60s (15.9%), followed by people who are in their 70s (15.4%), and then by people who are in their 50s (13.7%). These groups comprise almost 50% of all the services provided by the EMS. There is another study that includes these age groups and involves ethnicity and gender. It states middle-aged African American males are the most frequent users of EMS (Knowlton et al., 2013).

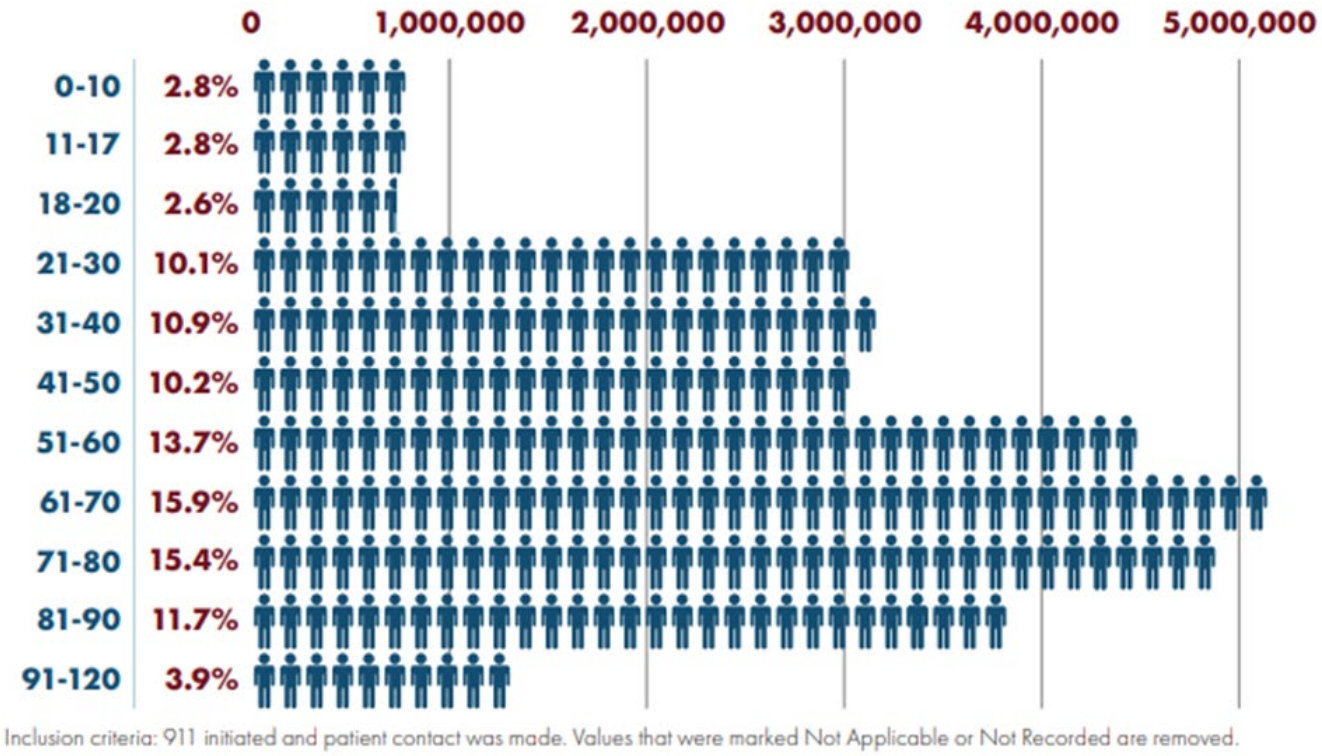


Figure 4: Average Age of Patients Support Nationally in 2021

Source: 2021 National EMS Data Report. https://nemsis.org/2021-nemsis-national-ems-data-report/

Types of EMS Incidents

The type of injuries that EMS supports are in Figure 5: Top 20 Causes of Injury in 202151.5% falls, followed by 29.5% motor vehicle crashes. It is known that mature and elderly populations are at a higher risk of falls and crashes. It is interesting to note that there is a fall-prevention program called Stopping Elderly Accidents, Deaths, and Injuries (STEADI). In 2022, the intervention ended, and the fall-related calls were reduced by 37.2% and improved the quality of life of the served population (Camp et al., 2024).

Cause of Injury ICD-10 Name	Count of Events	Percent of Total
Falls (including Tripping, Slipping, Fall from Furniture/Stairs, Ice/Snow)	**2,667,567**	51.5%
Motor Vehicle Crash (including Car Accident, Collision, Motorcycle, Occupant Injured)	**1,525,903**	29.5%
Assault (including by Bodily Force, by Blunt Object, by Stabbing, by Other Means)	**408,647**	7.9%
Other Specified Events, Undetermined Intent	**85,153**	1.6%
Intentional Self-Harm (including Suicide Attempt)	**68,463**	1.3%
Homicide (Attempted)	**61,593**	1.2%
Contact with Unspecified Sharp Object, Undetermined Intent	**56,703**	1.1%
Contact with Blunt Object, Undetermined Intent	**36,402**	0.7%
Striking Against or Struck by Other Objects	**33,289**	0.6%
Accidental Hit, Strike, Kick, Twist, Bite, Bump, or Scratch by Another Person	**28,699**	0.6%
Contact With or Bitten by Dog	**27,113**	0.5%
Injury, Unspecified	**25,508**	0.5%
Slipping, Tripping and Stumbling without Falling	**24,325**	0.5%
Contact with Knife, Sword or Dagger	**23,166**	0.4%
Activities, Other Specified	**21,768**	0.4%
Firearm Discharge	**20,453**	0.4%
Caught, Crushed, Jammed or Pinched In or Between Objects	**17,264**	0.3%
Contact with Sharp Glass	**15,517**	0.3%
Struck by Thrown, Projected or Falling Object	**14,826**	0.3%
Other Specified Effects of External Causes	**13,817**	0.3%
TOTAL	**5,176,176**	**100%**

Inclusion criteria: 911 initiated and patient contact was made. Values that were marked Not Applicable or Not Recorded are removed.

Figure 5: Top 20 Causes of Injury in 2021

Source: 2021 National EMS Data Report. https://nemsis.org/2021-nemsis-national-ems-data-report/

EMS Organization in New York State:

In New York State, EMS is organized in a trickle-down system. NYSDOH BEMS provides direct support to the NYS EMS Council, which in turn provides support to Regional EMS Councils, down to the County EMS Councils. These councils and agencies are advisory, many of them not-for-profit with minimal or no funding. The lack of a central regulatory agency means that each municipality is solely responsible for implementing EMS in their area. Please refer to Figure 6 EMS Organization in New York State for a more detailed view.

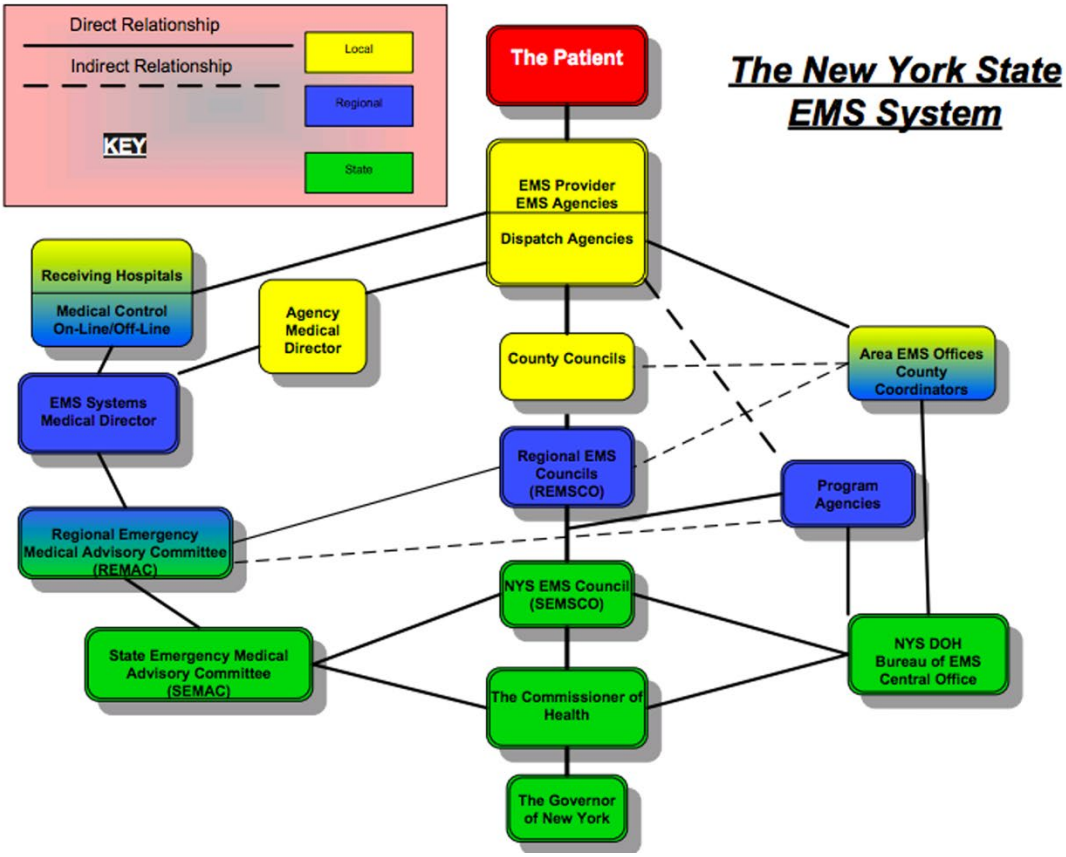


Figure 6 New York State EMS System

Source: https://www.nysfirechiefs.com/files/Misc%20Linked%20Documents/NYS_EMS_SYSTEM.pdf

EMS Rural and Urban Trends

Mental health awareness has been a debate on the national stage for years, but little headway has been made in truly addressing the issues (Lindow et al., 2020). The literature suggests that these issues are even worse for rural communities, reaching crisis level (Mongelli et al., 2020). While there has been an increased effort to provide enhanced mental health

services, the services remain limited. Increased awareness does not always necessarily translate to action (Jorm, 2012).

Qualitative data demonstrates that fire and EMS responders experience barriers to mental healthcare within the scope of their employment as first responders, especially in rural communities (Jones, et al., 2020). Rural first responder agencies recognize the sensitive nature of the project topic. Research demonstrates that departments have implemented efforts to reduce the stigma facing mental healthcare access for department personnel. However, due diligence and education do not seem to be having the impact on the stigma the department has been hoping for (Hampson, et al., 2018). Rural communities recognize the limited access to mental health services available (Merwin, et al., 2003). While there is increased attention to mental healthcare in the community, it does not seem to be impacting first responder perceptions due to lack of peer support and other factors (JEMS, 2015). Please refer to Figure 7: Suicide Contemplation and Attempts in EMS Cultures.

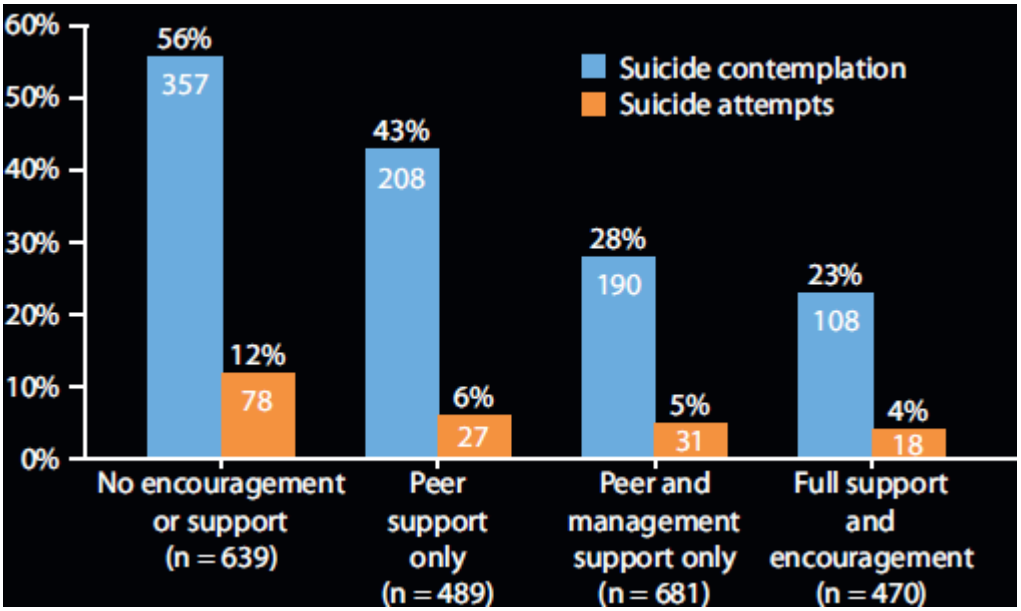


Figure 7: Suicide Contemplation and Attempts in EMS Cultures

Source : https://www.jems.com/special-topics/survey-reveals-alarming-rates-of-ems-provider-stress-and-thoughts-of-suicide/ (JEMS, 2015)

Talking about New York City, assaults on EMS workers in the New York City Fire Department have steadily increased year over year (Stanley et al., 2016). Many EMS. workers suffer from depression and lack adequate professional mental health support, much like the patients they treat (JEMS, 2015). Several members of the New York City Fire Department's

Emergency Medical Services died by suicide since the pandemic began, and hundreds have quit or retired (Hendrickson et al., 2022).

Those who are supposed to respond and help them are feeling overwhelmed too. Since March 2020, the unions that represent the Fire Department's medical responders have been so inundated with calls from members seeking help (Riccardi et al., 2023) that the EMS workers set up partnerships with three mental health organizations, all paid for by the EMS FDNY Help Fund, an independent charity group founded and funded by medical responders and the public through donations to help them out in times of crisis (Arus, 2022).

Since February 2021, new Mental Health Teams have used their physical and mental health expertise, and experience in crisis response to de-escalate emergency situations and help reduce the number of times police needed to respond to 911 mental health calls in these precincts (Reinert et al., 2021). These teams have the expertise to respond to a range of behavioral health problems, such as suicide attempts, substance misuse, and serious mental illness, as well as physical health problems, which can be exacerbated by or mask mental health problems. NYC Health + Hospitals have trained and provided ongoing technical assistance and support. In selecting team members for this program, FDNY has prioritized professionals with significant experience with mental health crises (Wong, 2023).

Over 65 percent of all operational staff in NYPD patrol precincts across the city have now been trained in Crisis Intervention Team training (Harrington et al., 2014), a state-of-the-art approach that continues to improve the way officers recognize and respond to behavioral health problems experienced by people they encounter. In all precincts other than the two precincts selected for this pilot, NYPD officers and FDNY Emergency Medical Services EMTs will continue to provide coordinated responses to mental health emergencies.

Behavioral Health Emergency Assistance Response Division, known as B-HEARD, by NYC Health and Hospitals, is a ground-breaking, health-centered response to 911 mental health calls. B-HEARD teams include FDNY Emergency Medical Technicians/Paramedics and a mental health professional from NYC Health and Hospitals who are dispatched as first responders to people experiencing a mental health emergency (Wong, 2023).

The goals of the B-HEARD pilot program are:

- Route 911 mental health calls to a health-centered B-HEARD response whenever it is appropriate to do so.

- Increase connection to community-based care, reduce unnecessary transport to hospitals, and reduce unnecessary use of police resources.

EMS Workforce shortages in rural communities:

Rural Americans currently experience increased difficulty in accessing healthcare across the board when compared to their urban counterparts (Caldwell et al., 2016). This reduced access to care contributes to disparities in healthcare outcomes, especially for patients suffering from mental health issues (Hartley, 2004). Specialty providers are often limited in rural communities, especially for mental health, leaving primary care providers and general practitioners to fill in the gaps (Wong, 2023). An estimated 53.27% of mental health professional shortage occurs in rural areas. This translates to 90 million Americans having limited access to a mental health professional (Wong, 2023; Rural Health Information Hub, 2019). Telehealth providers are being used to fill in the gaps in mental healthcare access in rural communities. These services effectively bridge access to care gaps and are gaining acceptance in rural communities (Marcin et al., 2016). However, access to these services is largely dependent on fragile rural healthcare networks where more than a hundred rural hospitals across the US closed between January 2010 and January 2018 (Chatterjee, 2022).

The problems faced by rural EMS services today are as varied and complex as the areas that they serve. Rural areas have larger coverage areas with comparatively few patients, thus lower apparent statistical need for emergency coverage, and even fewer available physicians or responders. A study from 2008 showed that, on average, systems in completely rural areas responded to approximately 2,500 calls per year, compared to approximately 42,000 calls per year in large urban areas (MacKenzie & Carlini, 2008). However, in more recent years, the gap between urban and rural EMS systems has closed considerably. National training standards have created a workforce of EMTs and paramedics capable of staffing ambulances in cities and the countryside alike. National EMS certification guidelines and training standards are an important step in the right direction, but at the state level, financing, certification requirements, and regulations differ, often to the detriment of struggling rural communities. Although state EMS offices have done well to expand emergency care access to people in all areas, the problems faced by rural systems appear to be at risk of making the system untenable.

SECTION II: MENTAL HEALTH FOR FIRST RESPONDERS

Social Support Roles

Social support is critical to physical and mental well-being. People help others by offering *direct support* (resources or information), and by providing the emotional support that *buffers* them from the effects of stress and trauma.

Theory on social support outlines four support roles (Cohen & Wills, 1985; House, 1981).

- *Informational* – providing information or knowledge that may support someone's well-being or help them find treatment. Examples include:
    - Explaining mental health concepts to help someone understand what they are experiencing
    - Problem-solving, or talking through a stressful situation or event
    - Giving information or contacts for getting treatment or other support
- *Instrumental* – help in the form of tangible, practical or physical assistance. Examples include:
    - Providing or lending money, transportation, food, tools, or other items
    - Helping with a project, such as cleaning the house or fixing something
    - Providing a service, such as childcare or shopping
    - Going with someone to a stressful appointment
- *Appraisal* – providing affirmation, reassurance, monitoring, or positive reframing. Examples include:
    - Reassuring someone that they are skilled, competent, and needed
    - Helping someone reframe a situation or feelings to be more positive, realistic, productive, and hopeful
    - Regularly checking on someone's physical and emotional well-being
- *Emotional* – providing empathy, caring, trust, or love. Examples include:
    - Telling someone you understand, support, and care about them
    - Assuring someone they are valuable, trusted, respected, important, and needed by others
    - Loving someone as a friend, partner, or family member

Programs and Services Available

Mental Health Resources for First Responders:

- *Share the Load Program - National Volunteer Fire Council (NVFC)*
    - Provides access to critical resources and information to help first responders and their families manage and overcome personal and work-related problems (Department of Health, 2024)
    - Includes the Directory of Behavioral Health Professionals as a resource to find local assistance for behavioral health issues (Department of Health, 2024)
- *Code Green Campaign*
    - A first responder oriented mental health advocacy and education organization that serves all types of first responders, including firefighters, EMTs, paramedics, dispatchers, police, etc. (Department of Health, 2024)
    - Aims to improve mental wellness for first responders and to reduce barriers to accessing mental health care (Department of Health, 2024)
    - Brings awareness to the high rates of mental health issues in first responders and reduces them (Department of Health, 2024)
    - Eliminates the stigma that prevents people from admitting these issues and asking for help (Department of Health, 2024)
    - Educates first responders on self-care and peer care and advocates for systemic change in how mental health issues are addressed by first responder agencies (Department of Health, 2024)

Mental Health Resources for Agencies:

- *Psychologically Healthy Fire Department - NVFC*
    - Implementation Toolkit
    - Types of practices that support well-being and performance can be grouped into six categories (Department of Health, 2024):
        - Member Involvement
        - Health & Safety
        - Member Growth & Development
        - Work-Life Balance
        - Member Recognition
        - Effective Communication

- *Firefighter Behavioral Health Alliance*
    - Goal is to provide behavioral health workshops to fire departments, EMS, and dispatch organizations across the globe (Department of Health, 2024)
    - Collaborate, develop, and implement behavioral health awareness, prevention, intervention, and post-crisis strategies to provide firefighters with an easily accessible and confidential source of information (Department of Health, 2024)
    - Emphasis towards suicide prevention and promoting resources available to firefighters/EMS/dispatchers and their families (Department of Health, 2024)
- *NAEMT Guide to Building an Effective EMS Wellness and Resilience Plan*
    - Guidebook presents steps agencies can take to develop a culture of resilience and wellness among EMS professionals (Department of Health, 2024)
    - Suggestions for specific programs and initiatives to support a healthy EMS workforce (Department of Health, 2024)
    - Includes tips from EMS agencies on what resilience and wellness initiatives worked for them (Department of Health, 2024)
    - Ideas for engaging community partners and stakeholders with supporting the wellness and resilience of EMS practitioners (Department of Health, 2024)
- *Implementation Guidebook - 2018 Fatigue Risk Management Guidelines for EMS*
    - Helps EMS administrators with implementation of the Evidence Based Guidelines for Fatigue Risk Management in EMS (Department of Health, 2024)
    - Composed of 5 recommendations:
        - Using fatigue/sleepiness survey instruments to measure and monitor fatigue in EMS personnel (Department of Health, 2024)
        - EMS personnel work shifts shorter than 24 hours in duration (Department of Health, 2024)
        - EMS personnel have access to caffeine as a fatigue countermeasure (Department of Health, 2024)
        - EMS personnel have the opportunity to nap while on duty to mitigate fatigue (Department of Health, 2024)
        - EMS personnel receive education and training to mitigate fatigue and fatigue-related risks (Department of Health, 2024)

SECTION III: SUICIDE PREVENTION

Factors that Affect Suicide Risk

- ➤ *Why are some EMS providers at increased risk for suicide?*

- ➤ *What factors may increase or reduce someone's risk of having suicidal thoughts or attempting suicide?*

The following factors affect (increase or decrease) one's risk of poor mental health and suicide, according to literature about EMS, firefighters, and police. Note that these factors apply to the general population, but they are listed here because they are relevant to or overrepresented among first responders. Understanding these factors can help EMS and staff be aware of "red flags" among their colleagues (Stanley et al., 2016).

Note: Every person and situation are different – not having risk factors or having protective factors does not mean someone is not at risk!

- *Occupational hazards and stressors* impact mental health, meaning levels of responsibility, risk, and stress associated with EMS providers' specific jobs. These include acute critical incidents (multiple casualty events) and chronic workplace challenges (difficulties managing patients, issues with coworkers, poor job performance, legal issues, etc.). Increased number and/or severity of risks/stressors raises levels of PTSD and depression (Gebreyesus et al., 2022; Hruska & Barduhn, 2021; Stanley et al., 2016).

- *Extent of trauma exposure*, either on the job or otherwise, increases chances of poor mental health (Gebreyesus et al., 2022; Stanley et al, 2016)

- *Multiple high-risk roles* (e.g., a police officer who is also an EMT) increase stress and exposure to trauma (Stanley et al., 2016)

- *Current or past military service* (e.g., combat exposure) increases exposure to trauma (Gebreyesus et al., 2022; Stanley et al., 2016)

- *Access to firearms and other lethal methods* (e.g., service revolver, personal weapons) increases one's risk of suicide (Stanley et al., 2016)

- *Erratic shift schedules* (e.g., sleep disturbances, disrupted family lives) put EMS providers at higher risk of poor physical and emotional health (Stanley et al., 2016). This is notable given the connection between poor sleep following trauma exposure and an increased risk for the onset and persistence of mental health disorders (Hruska & Barduhn, 2021).

- *Personal beliefs about the stigma of mental health as a "weakness"* reduce the chance that an EMS provider will have hope and seek help. (This stigma is a primary barrier to EMS providers addressing mental health, as described in the "Barriers to Addressing Mental Health" section below) (Stanley et al., 2016).

- *A focus on helping others at the expense of focusing on personal needs* means that EMS providers may not take care of their own mental health (Stanley et al., 2016)

- *Less role stability* increases EMS providers' risk of suicide. One study found that suicidal first responders were more likely to be of lower rank, have fewer years of service, and be volunteers vs. career (Stanley et al., 2016)

- *Being in a smaller department* has been shown to increase chance of suicidality since smaller departments often have fewer and/or lower quality mental health resources (Stanley et al., 2016)

- *Being a demographic minority* (e.g., race/ethnicity, gender, sexuality) in one's community can increase EMS providers' rates of poor mental health, according to some studies (Gebreyesus et al., 2022)

- *Pre-existing mental disorders* increase one's risk of suicide (Gebreyesus et al., 2022)

- *History of Adverse Childhood Event(s) (ACEs)* (e.g., trauma, parental drug abuse, violence, poverty) increases chances of poor mental health (Gebreyesus et al., 2022)

- *Number/quality of social support networks* - having more and better "circles of support" improves mental health. These network groups could be friends, family, colleagues, clubs, teams, religious affiliations, activity groups (e.g., "poker night"), and more (Gebreyesus et al., 2022)

- *Marital/partner relationship status/quality* - those in stable, happy partnerships generally have better mental health; those going through divorce or separation may be particularly at risk for suicide (Gebreyesus et al., 2022)

- *History of sexual abuse/trauma* puts one at more risk of poor mental health (Gebreyesus et al., 2022)

- *Social conflict* increases the risk for both new and more severe depressive episodes; some research suggests that social conflict is associated with greater PTSD symptom severity among people experiencing high impact traumatic events (Hruska & Barduhn, 2021)

Suicide Prevention Resources

Mental Health Resources for First Responders:

- *Firefighter/EMT Suicide Screening - Firefighter Behavioral Health Alliance (FFBHA)* (See: Appendix B: Firefighter/EMT Suicide Screening FFBHA)
    - Self-screening for suicide ideations for firefighters/EMTs
    - If a person answers "YES" to at least three of the questions, FFBHA recommends that he/she contacts a local Mental Health Care Professional that deals with firefighters/EMTs that suffer from suicidal ideations and depression (Department of Health, 2024).

Mental Health Resources for Agencies:

- *American Ambulance Association: Promoting Suicide Safety for EMS Providers*
    - Toolkit provides information on how to prepare for or respond to suicide concerns in the workplace at three times (Department of Health, 2024):
        - Before an EMS provider experiences a crisis
        - During a crisis event when an EMS provider may experience thoughts of suicide
        - In the aftermath of a crisis

Barriers to Addressing Mental Health & Proposed Solutions

The key barrier preventing EMS providers from addressing mental health is lack of knowledge – awareness and education – about how mental health affects their profession. They want to know that mental health issues are normal, what signs and symptoms to look for in themselves and others, how to know when to get help, the benefits of seeking help, and what resources are available (Jones et al., 2020).

- ➤ *What are common reasons EMS providers don't seek help for mental health issues?*
- ➤ *How can our organization try to reduce these barriers?*

Following are more specific barriers that prevent EMS providers from addressing mental health, including ideas for addressing them:

Barriers to Addressing Mental Health	Proposed Solutions
The stigma of mental health issues as a "weakness" is the most common barrier noted by first responders (cited by ~90% of respondents in one US study) (Smith et al., 2021). Our culture values strength and self-reliance, which is valid and well-earned given the demands of the job. However, we need to change environmental cues (perceived or experienced) (Horan et al, 2021) that attach "weakness" to having mental health issues or seeking help (Jones et al., 2020).	➢ Find ways to include mental health in your work environment and daily culture. Culture change is slow, but it is achievable if things are incorporated as naturally and seamlessly as possible into multiple areas of work and home life. ➢ Ensure your agency has policies in place to deter taunting and bullying related to this harmful stigma. Remember that policies are effective only if they are enforced.
Perceived lack of access and availability – concerns about having few or inadequate options, or that getting help will incur time constraints or financial burdens (Jones et al., 2020).	➢ Clearly document mental health resources and options, including how to access them, and time and cost estimates. "Surround" your EMS providers with this information, as posters in your building and on rigs, brochures, on websites, distributed via email, and discussed at agency meetings.
Fear of having one's confidentiality breached, especially if they feel they will be judged or penalized for having mental health issues (Jones et al., 2020).	➢ Educate EMS providers about patient-confidentiality laws that protect them when speaking with professionals. Consider how confidentiality can be protected (although perhaps not by law) in informal relationships.

Negative past experiences with a therapist. A common complaint is the feeling that the therapist did not understand or relate to the job (Jones et al., 2020).	➢ Vet local therapists and keep a list of those who have experience with EMS, firefighters, law enforcement, or military patients. Offer "ride-alongs" for therapists to become familiar with your team's daily experiences (Fisher & Lavender, 2023).
Fear of burdening family if they don't want to put pressure on family members or worry that having mental health issues exposed will embarrass or negatively affect them (Jones et al., 2020).	➢ Include family members in support programs, training, and communications. Integrating them on a regular basis will make it easier for EMS providers to include them when times get tough.
Feeling like the only one who suffers from mental health issues. People are more likely to seek help when they realize they are not alone and others also have this experience (Jones et al., 2020).	➢ Allow colleagues to share stories and encouragement through chat boards, in-person gatherings, posted testimonials, etc. Make it part of your environment to share mental health information without stigma or fear of recrimination.
False belief that one's mental health burden is "handleable." Too often, people don't seek help until the problem becomes too difficult ("rock bottom") or someone else notices they need help. EMS providers shouldn't have to wait until they hit rock bottom to understand that help is available. Catching problems earlier will reduce pain and improve outcomes (Jones et al., 2020).	➢ See above about sharing mental health histories and testimonials. Knowing others' mental health stories–good and bad–will reinforce the idea that it's acceptable and beneficial to seek help before situations become extreme.
Lack of buy-in and support for mental health from peers, administration, labor unions, and family members. (Jones et al., 2020).	➢ Efforts to improve mental health often start via "grassroots" efforts rather than top-down directives. Buy-in and support for mental health will create an environment where these efforts can take hold and flourish.
Lack of resources, personnel, and/or budget can be a barrier to setting up peer-to-peer support programs, especially for smaller agencies (Fisher & Lavender, 2023).	➢ Set up interdepartmental collaboration to share programs and resources with other agencies or localities, especially those with more resources. All parties can benefit from

	pooling ideas, staff, and resources (Fisher & Lavender, 2023).

SECTION IV: PEER-TO-PEER PROGRAMS

Description of Peer-to-Peer Programs

The origins of the peer-to-peer program came around the 18th Century in France (Shalaby & Agyapong, 2020). The peer-to-peer program has gained use in different fields like education, mental health in different professions like military and first responders. It was used in 1991 by the World Health Organization (WHO) to fight HIV/AIDS due to the effectiveness and trust between members (WHO, 2024). There is a European organization called “European Peer Trainers Organization (EPTO)” whose mission is to "To promote personal responsibility against prejudice and discrimination by increasing consciousness and understanding using educational interactive methods that create a respectful environment for everybody." (Anna Lindh Foundation, 2024). The word “peer-to-peer” was added to the English dictionary in the 1960s and it is defined as “communication without mediation” (Merriam-Webster, 2024). In the US, the peer support program was reimbursed by Medicaid until 2007 (Shalaby & Agyapong, 2020).

Some definitions of Peer-to-Peer programs:

- The educational definition of peer-to-peer is “people from similar social groups who help each other learn and learn by teaching themselves without a professional tutor” is also widely used. In the literature, peer education studies are expressed in various ways, such as peer teaching, peer-assisted learning, and peer counseling” (Sakru et al., 2023).

- Peer support is defined as “a range of approaches through which people with similar LTCs or experiences support each other to better understand the condition and aid recovery or self-management.” Peer support may take place face-to-face, over the phone or online” (Rowlands et al., 2023).

- “The core principles of peer support include recovery-focused, mutual, reciprocal, strengths-based, non-directive, safe, inclusive, and progressive, while previous research has identified its key components as supportive networks, recovery-orientation, and providing positive role models for others with mental health problems. In addition to role modeling, previous research found building trustful relationships based on lived experience and connecting service users with community resources as the effective mechanisms of peer support” (Tang et al., 2022).

- "The peer-to-peer model is an effective approach to shifting social norms that encourage positive health behaviors. Research shows that peers strongly influence the decisions and behaviors of other students. Students who are influenced positively by their peers will engage in new activities and make healthier choices" (Buglione, 2022).

- The goals of peer mental health programs are to (1) reduce stigma and (2) increase efficacy around seeking treatment (Horan et al., 2021).

- A peer-support model has helped first responders to improve psychological health using the Recognized, Evaluate, Advocate, Coordinate and Track (REACT) training. They used the train-the-trainer method to promote stress reduction and mental health awareness. The general outcomes were related to knowledge, self-improvement, resilience, and improved attitude. This method is being used to improve psychological health (Marks et al., 2017).

- We defined what peer-to-peer support is and these are some recommendations on how it could be to be provided:

    - Include "reach out" and "reach in" support: Everyone should have ways to:

        - Reach out for help when they need it
        - Reach in to others who need help by knowing how to anticipate/notice when someone needs help and knowing how to communicate (Smith et al., 2021)

    - Consider how to integrate mental health into your daily work environment, including multiple aspects of EMS providers' work and life (Smith et al., 2021).

    - Consider the 4 social support roles described in the "Mental Health - Social Support Roles" section above:

        - Informational: knowledge, information about resources
        - Instrumental: tangible, practical, physical needs
        - Appraisal: affirmation, reassurance, support, monitoring, positive reframing
        - Emotional: trust, empathy, love, care (House, 1981; Tjin et al., 2022)

Effectiveness and Benefits of Peer-To-Peer Programs

- Eight studies about peer-to-peer programs were conducted, and the results supported the idea that peer-to-peer programs were beneficial for the participants. Some of the benefits of peer-to-peer programs include reduction in stigma after some training, reduction of sick leave days, improvement of mental health, and fewer PTSD symptoms. The studies vary in quality of research and strength, but all of them show significant improvement after the implementation of the peer-to-peer program (Anderson et al., 2020).

- The COVID-19 pandemic pushed us to interact online more often. The *Extension for Community Health Care (ECHO)* was adopted by first responders, and they consisted of joining weekly sessions. The results showed an increase in the sense of belonging (feeling less detached among participants). The listening sessions took place in a supportive and revising environment with a supportive community, and participants reported increased resilience, new skills, and motivation to share them with their colleagues (Katzman et al., 2021). (See more about the *ECHO* program below in the Examples of Peer-to-Peer Programs section.)

- Traditional supports for EMS mental health include critical incident debriefing, healthy lifestyle programs, EAP treatment, and clinical treatment provided through agency or municipality. The issue with these is the patient must *seek these out,* despite the barrier of stigma about seeking treatment. Peer-to-peer support is meant to reduce the formality of treatment and make it more accessible (Horan et al., 2021).

- The role of peer support is NOT to provide therapy, but rather to normalize it, encourage it, and help patients seek and access it (Horan et al., 2021).

- Peer support can be through (1) modeling of health peers based on observational learning theories, or (2) direct forms of instrumental and emotional support (Horan et al., 2021).

- Reasons some prefer peer support: (1) peers understand the job and "get it," thus true empathy, (2) hearing from peers promotes patient buy-in, (3) many prefer informal methods, especially due to stigma of seeking help, (4) patients may trust peers more than professionals (Horan et al., 2021).

Identified Barriers of Peer-To-Peer Programs

- Not including leadership in the peer-to-peer process.

- Lack of resources (location, personnel, printing materials, etc.).

- Limited time from EMS staff and volunteers to receive help.

- Volunteers do not have the same access to programs as paid staff.

- The agency or department does not have enough people.

- Stigma surrounding mental health support and cultural beliefs of not seeking help (you cannot show weakness or fears vs being “up to the job”).

- Lack of confidentiality protections for peer supporters can present problems if incidents lead to litigation. Without confidentiality protections in place, first responders might be hesitant to speak to someone for fear of being reported (Fisher & Lavender, 2023).

- Lack of an internal champion and broad community/political support can stymie “grassroots” efforts. Agencies can identify a “mental health champion” to prevent this (Fisher & Lavender, 2023).

Examples of Peer-to-Peer Programs

- *Battle-Buddy-Bridge Veteran Peer Program* - some veterans are trained to be resource navigators or “battle buddies” and provide services to veterans and their families about housing, health care, family support, education, employment, legal services, and benefits (AmeriCorps, 2024).

- *Buddy-to-Buddy* is another peer-to-peer program supporting citizen soldiers. An initiative called “Welcome Back Veterans” offered a peer-to-peer program for soldiers and their families. The purpose was improving mental health (reduce suicides) and PTSD symptoms from soldiers and support integration to jobs, homes, and relationships with their families (Greden et al., 2010).

- *CARES (Connect to emotion, Attention training, Reflective listening, Empathy, Support help seeking)* - CARES is a peer support model that has been proven among paramedic students to improve the effectiveness of peer support, coping skills, and emotional expression (Flanagan et al., 2023).

- *CISM (Critical Incident Stress Management Peer Support)* - CISM, developed by the International Critical Incident Stress Foundation, is a widely used peer support resource. In an integrated and multi-phase approach, it covers psychological trauma and stress (resistance, resilience, recovery), demonstrates how peer relationships can improve coping skills, fosters group cohesion and connectedness. It includes a facilitator certification course and requires at least 10% fidelity to the course design (Price et al., 2022a).

- *First Responder ECHO (Extension for Community Outcomes)* - Virtual program developed in New Mexico in 2019 to address First Responder mental health (originally in response to the opioid crisis, and later to incorporate COVID pandemic). Objective is to build resiliency and skills/efficacy around self-care. Curriculum includes psychological first aid, critical incident debriefing, moral distress, crisis management strategies, and self-care

skills. The program includes weekly learning-listening sessions, social support, and community practice (Katzman et al., 2021a; Katzman et al., 2021b).

- *Road to Mental Readiness (R2MR)* - Resiliency training program that has been tested in Australia and Canada. Results indicated that the program helped reduce stigma, increase resiliency, and was relevant to work and personal lives (Smith et al., 2021).

- *Warr;or21 Program* - Highly-reviewed program that teaches daily practices (controlled breathing, gratitude, etc.) based on positive psychology and resilience over a 21-day timeframe. (The semicolon is a reference to *Project Semicolon*, a suicide prevention program) (Smith et al., 2021).

SECTION V: POSTVENTION

Postvention Background

The Surgeon General's recent "Call to Action to Implement the National Strategy for Suicide Prevention" emphasizes the importance of treating suicide as a major public health issue (Tiesman et al., 2021). In 2019, the United States reported 47,500 suicide deaths and an estimated 1.4 million suicide attempts (Tiesman et al., 2021). The complex causes of suicide include a variety of personal, socioeconomic, medical, and economic aspects. Occupation appears as a possible risk factor, with some occupations, especially first responders, being particularly vulnerable. First responders, including law enforcement officers, firefighters, emergency medical services, physicians, and public safety telecommunicators, hold enormous responsibilities for maintaining public safety and health (Tiesman et al., 2021). However, the environments in which they work, as well as the specific stressors and culture that come with their jobs, all contribute to an increased suicide risk. Occupational stress, whether acute or chronic, has been associated with an increased risk of mental health problems among first responders, such as anxiety, depression, post-traumatic stress disorder, and suicide ideation (Tiesman et al., 2021).

Despite being perceived as part of the job, stress experienced by first responders can have serious consequences, particularly in terms of marital problems, which may be compounded by difficult work schedules and high family-work pressures (Tiesman et al., 2021). Alarmingly, law enforcement officials and firefighters are more likely to die by suicide than in the line of duty, and EMS providers have a 1.39 times higher suicide risk than the general public (Tiesman et al., 2021). Nonetheless, these estimates are likely to underestimate the full scope of the problem, as many first responders may not report their difficulties owing to perceived stigma or fears about job consequences. Furthermore, inadequate data collecting impedes efforts to design effective suicide prevention programs customized to the requirements of first responders, emphasizing the critical need for extensive data collection and focused interventions within this crucial sector (Tiesman et al., 2021).

Description of Postvention

Postvention refers to a variety of actions and interventions designed to help individuals and communities affected by suicide deaths (Salvatore, 2022). Postvention for EMS workers refer to a variety of interventions and support services designed to help EMS professionals and their communities deal with the aftermath of a suicide within their ranks or in the community they serve (Rothes et al., 2020). It entails quick response and continuous assistance to meet the emotional, psychological, and logistical requirements of EMS professionals and colleagues in the aftermath of a suicide incident. Postvention initiatives are critical for encouraging healing, resilience, and well-being among EMS personnel while also reducing negative consequences such as burnout, mental health difficulties, and additional suicides within the EMS community (Tiesman et al., 2021).

Importance of Postvention for EMS Workers

Postvention is especially important for EMS workers because of the unique problems and stressors they confront in their line of work. EMS professionals are routinely subjected to stressful occurrences, including suicides, which can have serious emotional and psychological consequences for their mental health and well-being (Rothes et al., 2020). Effective postvention efforts customized to the requirements of EMS personnel can help reduce the risk of negative outcomes such as post-traumatic stress disorder (PTSD), depression, and substance misuse, while also encouraging healthy coping skills and resilience (Antony et al., 2020). Furthermore, postvention actions in the EMS community can promote a supportive and empathetic culture, fostering open discourse about mental health and lowering stigma associated with help-seeking behaviors (Antony et al., 2020).

Postvention Key Terms

It is vital to ensure resources are available to support these activities to lessen the risk of suicide clusters and/or suicide contagion. Research shows that suicide-loss survivors present higher levels of depression, and suicidal ideation and behavior (Levi-Belz & Blank, 2023). Consequently, reducing the stigma and social isolation that can result from the loss is important in minimizing further risk of suicidal behaviors in the community (Gulliver et al., 2016).

Unfortunately, whenever there is exposure to suicide or suicidal behavior, there is an increased risk of others also attempting suicide. This is known as suicide contagion and can lead to suicide clusters: a group of suicides or suicide attempts. Please refer to Figure 8: Postvention Key Terms for important terms to keep in mind and resources available.

Term	Definition	Resources available
Suicide Cluster	Groups of suicides or suicide attempts occur closer together in time, space, or both than would normally be expected in a community.	• CDC Guidance for Community Assessment and Investigation of Suspected Suicide Clusters — United States, 2024 • How to Respond to a Suicide Cluster
Suicide Contagion	Suicide contagion occurs when the exposure to suicide or suicidal behavior of one or more people influences others to attempt suicide. *Note: Exposure can be direct by having a personal connection to the person who died by suicide, or indirect through media reporting or social media posts about a person who was not a personal connection.*	

Figure 8: Postvention Key Terms

Source: (CDC, 2024)

Postvention Guiding Principles

Suicide postvention activities are developed with the aim to facilitate recovery and prevent adverse outcomes for people and/or the community as a result of a suicide or attempted suicide (Andriessen & Krysinska, 2012).

- ***Comprehensive Support:*** Ensure that postvention activities take a comprehensive approach to meeting the multiple needs of EMS personnel, including psychological, emotional, and practical support.

- ***Timely Response:*** Prioritize timely response and intervention in the aftermath of major incidents or traumatic occurrences, acknowledging the potential for immediate and long-term psychological damage on EMS personnel.

- ***Peer Support Networks:*** Create and strengthen peer support networks within EMS organizations to provide accessible and confidential ways for EMS professionals to seek help and debrief following traumatic situations.

- ***Culturally Sensitive Approaches:*** Create postvention techniques that are culturally sensitive and adapted to the specific needs, values, and experiences of EMS professionals, while considering the EMS profession's own culture and ethos.

- ***Training and Education:*** Provide comprehensive postvention tactics, mental health awareness, and coping skills to EMS personnel, supervisors, and agency leadership to improve their capacity to recognize, respond to, and support colleagues in distress.

- ***Collaborative Partnerships:*** Encourage collaboration and partnerships with mental health experts, peer support organizations, and community resources to ensure EMS personnel have access to a comprehensive range of care and support services.

- ***Stigma Reduction:*** Work to eliminate stigma associated with mental health concerns in the EMS profession by encouraging open communication, normalizing help-seeking behaviors, and cultivating a friendly and nonjudgmental workplace atmosphere.

- ***Evidence-Based Procedures:*** Use evidence-based postvention procedures and treatments that have been found to reduce the negative psychological impacts of traumatic incidents and promote resilience among EMS professionals.

- ***Continuous Evaluation and Improvement:*** Evaluate and refine postvention initiatives based on feedback, research findings, and emerging best practices to guarantee their relevance, efficacy, and responsiveness to the changing needs of emergency medical services professionals.

- ***Leadership Commitment:*** Show leadership commitment and organizational support for postvention activities by providing resources, focusing on mental health and well-being, and actively establishing a culture of care and support within EMS agencies.

Postvention Templates

Written guidance, protocols, preplanning, well-defined roles, and professional development specific to suicide loss are essential supports that enable leaders to respond in a coordinated and effective manner. A Manager's Guide to Suicide Postvention in the Workplace, by the American Association of Suicidology and the National Action Alliance for Suicide Prevention, can be referenced for developing such resources (Carson J. Spencer Foundation, 2013).

Located in the Appendix of this guidance document, the Appendix F: Postvention Activities - Best Practices Checklist, adapted from Riverside Trauma Center "Riverside Trauma Center Prevention Guidelines" can be referenced by your agency to help develop protocols surrounding the response to suicides and suicide attempts. Also located in the appendix of this guidance document, Appendix G: Sample Pre-Planned Notification Letter, can be referenced should your agency need to convey messaging of a suicide. In addition, Best Practices and Recommendations for Reporting on Suicide can be utilized as a resource when developing appropriate notification of suicide.

SECTION VI: RECOMMENDATIONS

Here are additional factors to think about and possibly implement in the future to improve access to mental health services and support the mental well-being of Emergency Medical Services (EMS) providers:

- *Develop a broader approach when studying mental health among public safety workers.* Edgelow and colleagues introduced a new model called the TRi-Operational-Organizational-Personal Factor Model (TROOP). This model emphasizes the need to consider how operational tasks, organizational policies, and personal factors all play a role in the mental health of public safety workers. The TROOP model provides a framework for public safety organizations, leaders, and researchers to understand and address mental health challenges in public safety workers (Edgelow, 2023).

- *Employ mental health professionals who have specific training and experience in working with first responders.* These specialized clinicians must not only understand the unique challenges and stressors that first responders face in their line of work but also possess the skills and knowledge to effectively support and help them. Mental health clinicians who are familiar with the demands of the job and can provide targeted and tailored support. These specialized professionals can offer specialized therapies, coping strategies, and interventions that are best suited to the experiences and needs of first responders, ultimately improving their mental health and well-being (Fisher and Lavender, 2023).

- *Foster and promote interdepartmental collaboration among organizations that serve first responders.* This collaborative approach allows for the sharing of successful strategies, interventions, and programs that have been proven to work in different settings. By working together across departments, organizations can leverage their collective strengths and resources to develop more comprehensive and impactful mental health policies and programs for first responders. This collaborative effort can lead to improved outcomes for the mental well-being of first responders and create a more supportive and resilient workforce (Fisher and Lavender, 2023).

- *Create mental health training not only for first responders, but also for those in leadership positions, such as supervisors.* Tailored training for supervisors can improve their understanding of employee mental health, increase their comfort in addressing these issues, and give them the tools to effectively support their team members (Gayed et al, 2019). Additionally, research suggests that engagement of leadership is crucial in establishing a supportive workplace environment and is a fundamental component in reducing stigma in the workplace. (Szeto et al., 2019).

- *Implement multi-session programs.* This is supported by the fact that research indicates an average of 17.7 sessions is required to show notable improvements related to an intervention, such as, peer to peer programs, individual counseling, support group, etc. (Wild et al., 2020). This indicates that a longer duration of programming is often necessary

to achieve significant and lasting positive changes in various mental health and well-being interventions.

- *Personalize metal health delivery according to first responders' needs.* It is important to create interventions that involve input and support from first responders themselves, ensuring that the programs are relevant and effective for this unique group of individuals. Involving first responders in the design and implementation of mental health services increases the likelihood of achieving "buy-in" and participation, leading to improved outcomes and overall well-being for these essential frontline workers. This personalized approach helps to address the specific challenges and stressors faced by first responders, ultimately enhancing the effectiveness and relevance of mental health support in this demanding profession (Jones et al., 2020).

RESOURCES AND TOOLS FOR EMS PROVIDERS

EMS Councils per NYS County:

Below is a list of EMS Councils available in each county of New York State. These councils are your go-to for EMT training, continuing education, and contacts to develop and update existing training programs.

Adirondack-Appalachian REMSCO Counties: Delaware, Fulton, Hamilton, Montgomery, Otsego, Schoharie 24 Madison Ave Extension Albany, NY 12203 (518) 464-5097 (518) 464-5099 fax	Big Lakes Regional EMS Council Counties: Genesee, Niagara, Orleans 77 Goodell St, Suite 420 Buffalo, NY 14203 Phone: (716) 829-5500 fax: (716) 614-9701 www.biglakesremsco.org/
Central New York Regional EMS Council Counties: Cayuga, Cortland, Onondaga, Oswego, Tompkins Jefferson Tower - Suite LL1 50 Presidential Plaza Syracuse, New York 13202 (315) 701-5707 (315) 701-5709 fax www.cnyems.org	Chemung, Schuyler, Steuben EMS Foundation, Inc. Counties: Chemung, Schuyler, Steuben PO Box 114 Elmira, New York 14902 (607) 732-6994 (607) 732-4062 fax www.stremscouncil.com
Finger Lakes Regional EMS Council FLCC Geneva Ext. Ctr. Counties: Ontario, Seneca, Wayne, Yates 63 Pulteney Street Geneva, New York 14456 (315) 789-0108 (315) 789-5638 fax www.flremsc.org	Hudson-Mohawk Regional EMS Council REMO Counties: Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady 24 Madison Ave Extension Albany, New York 12203 (518) 464-5097 (518) 464-5099 fax www.remo-ems.com
Hudson Valley Regional EMS Council	Mid-State Regional EMS Council Counties: Herkimer, Madison, Oneida

Counties: Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster 33 Airport Center Drive Second Floor, Suite 204 New Windsor, New York 12553 (845) 245-4292 (845) 245-4181 fax www.hvremsco.org	Faxton-St. Luke's Healthcare 14 Foery Drive Utica, NY 13501 (315) 738-8351 (315) 738-8981 fax www.midstateems.org
Monroe-Livingston Reg EMS Council Counties: Livingston, Monroe University of Rochester Medical Center 601 Elmwood Avenue Box 655 Rochester, New York 14642 (585) 463-2900 (585) 463-2966 fax www.mlrems.org	Mountain Lakes Regional EMS Council Counties: Clinton, Essex, Franklin, Warren, Washington 375 Bay Road, Suite 100 Queensbury, NY 12804 (518) 793-8200 (518) 793-6647 fax www.nenyems.org
Nassau Regional EMS Council Counties: Nassau 2201 Hempstead Turnpike, Bin #80 East Meadow, NY 11554 (516)-572-0190 (516) 572-5595 fax Email: Remsco@Nassauems.org	North Country Regional EMS Council Counties: Jefferson, Lewis, St. Lawrence 120 Washington Street, Suite 230 Watertown, NY 13601 (315)755-2020 ext. 56 315-755-2022 fax www.fdrhpo.org
Regional EMS Council of New York City Counties: Bronx, Kings, New York, Queens, Richmond 475 Riverside Drive, Suite 1929 New York, New York 10115 (212) 870-2301 (212) 870-2302 fax www.nycremsco.org	Southwestern Regional EMS Council Counties: Allegany, Cattaraugus, Chautauqua 150 North Union Street Olean, NY 14760 (716) 372-0614 https://www.swrems.org
Suffolk Regional EMS Council Counties: Suffolk 360 Yaphank Avenue, Suite 1B	Susquehanna Regional EMS Council Counties: Broome, Chenango, Tioga 311 Exchange Avenue, 2nd Floor, Unit2

Yaphank, New York 11980 (631) 852-5080 (631) 852-5028 fax www.suffolkremsco.com	Endicott, New York 13760 (607) 699-1367 (607) 397-2728 fax www.srems.com
Westchester Regional EMS Council Counties: Westchester 4 Dana Rd. Valhalla, New York 10595 (914) 231-1616 (914) 813-4161 fax www.wremsco.org	Wyoming-Erie Regional EMS Council Counties: Erie, Wyoming 77 Goodell St, Suite 420 Buffalo, NY 14203 Phone: (716) 829-5500 fax: (716) 614-9701 https://werems.org/

(Department of Health, 2024)

Mental Health and Wellness Smartphone Apps for EMS and First Responders

- Heroes Health Initiative
  - Heroes Health is a free mobile application that helps healthcare workers track their mental health and access confidential mental health resources.
  - Track your wellness with a set of 5-minute weekly surveys.
  - Access mental health resources specific to your organization.
  - Anonymously let your organization know how they're doing.

(Heroes Health Initiative, 2022)

- Crew Care
  - A mobile app originally designed for the first responder industry and as of late, is being extended to healthcare providers. The CrewCare app is available in the US, Canada, and Australia.
  - Crew Care highlights that mental health for first responders is very important because almost 50% of first responders feel there are negative consequences for seeking mental health help" and "suicide contemplation is 10x higher in first responders" (Crewcare, N.D.)
  - Bringing overall awareness to mental health
  - Increasing self-awareness of stress load

- Improving support offered within the industry

(CrewCare, n.d.)

- RESPONDERSTRONG™ Responder Strong
  - ResponderStrong is a free, confidential space for responders and their families to take charge of their well-being and be their best in their personal and professional lives.
  - In collaboration with the All-Clear Foundation, GMR, and Anschutz Foundation, this platform was built to support all aspects of a responder's life from finances and relationships to physical, mental, and emotional well-being. Their goal is to freely and confidentially connect responders to their own form of effective support.
  - Tips, tools, and life hacks from other responders.

(ResponderStrong, 2024)

- 

Mindfulness Coach
  - Mindfulness Coach was created by VA's National Center for PTSD.
  - Mindfulness Coach was developed to help Veterans, Service members, and others learn how to practice mindfulness. The app provides a gradual, self-guided training program designed to help you understand and adopt a simple mindfulness practice. Mindfulness Coach also offers a library of information about mindfulness, 12 audio-guided mindfulness exercises, a growing catalog of additional exercises available for free download, goal-setting and tracking, a mindfulness mastery assessment to help you track your progress over time, customizable reminders, and access to other support and crisis resources.

(Mindfulness Coach, 2024)

National Resources

- National Volunteer Fire Council - https://www.nvfc.org/join-nvfc/
- https://www.nvfc.org/provider-directory/
- National 24/7 Suicide Hotlines 1.-800-SUICIDE (1-800-784-2433), 1-800-273-TALK (1-800-273-8255)

- First Responder Peer Support Hotline: 1-267-893-5400, operated by Pennsylvania-based Lenape Foundation (Number Printed on all EMS Certification Cards)
- National Safe Call Now: 1-206-459-3020, Safe Call Now is a CONFIDENTIAL, comprehensive, 24-hour crisis referral service for all public safety employees, all emergency services personnel, and their family members nationwide.
- National Suicide Prevention Lifeline: 1-800-273-8255
- National Crisis Text Line: Text "FRONTLINE" to 741741
- Pennsylvania County Crisis Lines (PA Department of Human Services)
- International Critical Incident Stress Foundation Hotline: 1-410-313-2473, Any emergency service organization, or individual connected with an emergency service, may call the 24-hour Emergency Hotline for assistance or information on locating a Critical Incident Stress Management (CISM) team. If a situation distresses emergency workers and they need guidance in working through the stress, this hotline can also be called.
- Veterans Crisis Line (For Veterans Only) 1-800-273-8255 (Press 1)
- Disaster Distress Helpline: 1-800-985-5990
- Pennsylvania Drug/Alcohol Treatment Hotline: 1-800-662-4357 (PA Department of Drug and Alcohol Programs).
- SAMHSA Disaster Technical Assistance Center (DTAC)
- Resources for First Responders: http://www.sprc.org/settings/first-responders

REFERENCES

Algorani, E. B., & Gupta, V. (2023). Coping Mechanisms. In *StatPearls*. StatPearls Publishing.

AmeriCorps. (2024, March 18). Battle-Buddy-Bridge Veteran Peer Program. https://my.americorps.gov/mp/listing/viewListing.do;jsessionid=ui2G2SkH5_hOAwyLn5-pG7Z3I_LzQP1HkL2IWOUxRIo4l2v3FrgF!-1748954121?id=64658&fromSearch=true

Anderson, G. S., Di Nota, P. M., Groll, D., & Carleton, R. N. (2020). Peer support and crisis-focused psychological interventions designed to mitigate post-traumatic stress injuries among public safety and frontline healthcare personnel: A systematic review. *International Journal of Environmental Research and Public Health*, *17*(20). https://doi.org/10.3390/ijerph17207645

Andriessen, K., & Krysinska, K. (2012). Essential questions on suicide, bereavement and postvention. *International Journal of Environmental Research and Public Health, 9*(1), 24–32. https://doi.org/10.3390/ijerph9010024

Anna Lindh Foundation. (2024). *European Peer Trainers Organization (EPTO).* https://www.annalindhfoundation.org/members/european-peer-trainers-organisation-epto

Antony, J., Brar, R., Khan, P. A., Ghassemi, M., Nincic, V., Sharpe, J. P., Straus, S. E., & Tricco, A. C. (2020). Interventions for the prevention and management of occupational stress injury in first responders: A rapid overview of reviews. *Systematic Reviews, 9*(1), 121. https://doi.org/10.1186/s13643-020-01367-w

Arus, S. (2022). New York State's fragmented emergency medical services system: an exposé.

Barnhorst, A., Gonzales, H., & Asif-Sattar, R. (2021). Suicide prevention efforts in the United States and their effectiveness. *Current opinion in psychiatry*, *34*(3), 299–305. https://doi.org/10.1097/YCO.0000000000000682

Berkowitz, L., McCauley, J., & Mirick, R. (n.d.). *Riverside Trauma Center postvention guidelines.* Riverside Trauma Center. https://f.hubspotusercontent00.net/hubfs/6899005/Content%20Subscription%20Library/Suicide%20PIP%20(TC%20docs)/PostventionGuidelines.pdf

Bevan, M. P., Priest, S. J., Plume, R. C., & Wilson, E. E. (2022). Emergency First Responders and Professional Wellbeing: A Qualitative Systematic Review. *International journal of environmental research and public health*, *19*(22), 14649. https://doi.org/10.3390/ijerph192214649

Brooks, I. A., Sayre, M. R., Spencer, C., & Archer, F. L. (2016). A Historical examination of the development of emergency medical services education in the US through key reports (1966-2014). *Prehospital and Disaster Medicine*, *31*(1), 90–97. https://doi.org/10.1017/S1049023X15005506

Buglione, K. (2022). *What is a mental health peer-to-peer program?* https://timelycare.com/blog/what-is-a-mental-health-peer-to-peer-program/

Caldwell, J. T., Ford, C. L., Wallace, S. P., Wang, M. C., & Takahashi, L. M. (2016). Intersection of living in a rural versus urban area and race/ethnicity in explaining access to health care in the United States. *American journal of public health*, *106*(8), 1463-1469.

Camp, K., Murphy, S., & Pate, B. (2024). Integrating fall prevention strategies into EMS services to reduce falls and associated healthcare costs for older adults. *Clinical Interventions in Aging*, *19*, 561–569. https://doi.org/10.2147/CIA.S453961

Carson J. Spencer Foundation, Crisis Care Network, National Action Alliance for Suicide Prevention and American Association of Suicidology. (2013). *A manager's guide to suicide postvention in the workplace: 10 action steps for dealing with the aftermath of suicide.* Carson J Spencer Foundation.

Centers for Disease Control and Prevention. (2024, February 29). Morbidity and Mortality Weekly Report (MMWR). *CDC Guidance for Community Assessment and Investigation of Suspected Suicide Clusters, United States, 2024.* https://www.cdc.gov/mmwr/volumes/73/su/su7302a2.htm?s_cid=su7302a2_w

Centers for Disease Control and Prevention. (2024, February 28). *Suicide clusters.* https://www.cdc.gov/suicide/resources/suicide-clusters.html

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310–357. https://doi.org/10.1037/0033-2909.98.2.310

Chatterjee, P. (2022). Causes & Consequences of Rural Hospital Closures. *Journal of Hospital Medicine*, *17*(11), 938. https://doi.org/10.1002/jhm.12973

CrewCare. (n.d.). CrewCare: *First responder and healthcare worker mental health awareness mobile app* [Mobile App]. *https://www.crewcarelife.com/*

Department of Health. (n.d.). *Regional EMS councils.* https://www.health.ny.gov/professionals/ems/regional.htm

Department of Health (1970). 1970 Budget Analysis: Health and Welfare. https://lao.ca.gov/analysis/1970/11_health_1970.pdf

Department of Health. (2024, February). *The balance of mental health and well-being for all EMS providers.* https://www.health.ny.gov/professionals/ems/mental_health.htm

Edgelow, M., Fecica, A., Kohlen, C., & Tandal, K. (2023). Mental health of public safety personnel: Developing a model of operational, organizational, and personal factors in public safety organizations. *Frontiers in Public Health*, *11*. https://doi.org/10.3389/fpubh.2023.1140983

Eisenberg, M. S., & Psaty, B. M. (2010). Cardiopulmonary resuscitation: celebration and challenges. *JAMA*, *304*(1), 87–88. https://doi.org/10.1001/jama.2010.898

EMS1 (2024). EMS1, Our Mission. https://www.ems1.com/about

EMS (2024). About the Office of EMS. About the Office of EMS | EMS.gov

EMS Agenda 2050 (2024). A people-centered vision for the future of emergency medical services. EMS Agenda 2050: A People-Centered Vision for the Future of Emergency Medical Services

Erlich, M. D., Rolin, S. A., Dixon, L. B., Adler, D. A., Oslin, D. W., Levine, B., Berlant, J. L., Goldman, B., Koh, S., First, M. B., Pabbati, C., & Siris, S. G. (2017). Why We Need to Enhance Suicide Postvention: Evaluating a Survey of Psychiatrists' Behaviors after the Suicide of a Patient. *The Journal of nervous and mental disease*, *205*(7), 507–511. https://doi.org/10.1097/NMD.0000000000000682

Evans, T. R., Burns, C., Essex, R., Finnerty, G., Hatton, E., Clements, A. J., Breau, G., Quinn, F., Elliott, H., Smith, L. D., Matthews, B., Jennings, K., Crossman, J., Williams, G., Miller, D., Harold, B., Gurnett, P., Jagodzinski, L., Smith, J., Milligan, W., … Weldon, S. (2023). A systematic scoping review on the evidence behind debriefing practices for the wellbeing/emotional outcomes of healthcare workers. *Frontiers in psychiatry*, *14*, 1078797. https://doi.org/10.3389/fpsyt.2023.1078797

Fisher, M. P., & Lavender, C. D. (2023). Ensuring optimal mental health programs and policies for first responders: Opportunities and challenges in one U.S. state. *Community Mental Health Journal*, *59*(7), 1341–1351. https://doi.org/10.1007/s10597-023-01121-1

Flanagan, B., Warren-James, M., & Young, J. (2023). Evaluation of the CARES skills framework as a peer support model in the paramedic undergraduate curriculum: Facilitating challenging discussions in a safe environment. *Prehospital Emergency Care*, *27*(8), 971–977. https://doi.org/10.1080/10903127.2022.2125136

Gaston, S. R. (1971). "Accidental death and disability: The neglected disease of modern society;" A progress report. *Journal of Trauma and Acute Care Surgery*, *11*(3), 195-206.

Gayed, A., LaMontagne, A. D., Milner, A., Deady, M., Calvo, R. A., Christensen, H., Mykletun, A., Glozier, N., & Harvey, S. B. (2018). A new online mental health training program for workplace managers: Pre-post pilot study assessing feasibility, usability, and possible effectiveness. *JMIR Mental Health*, *5*(3). https://doi.org/10.2196/10517

Gebreyesus, T., Cohen, J., Rasulnia, B., & Kuwabara, S. (2022). Factors that affect emergency responder wellbeing: Considerations for public health responders. *Disaster Medicine and Public Health Preparedness*, *16*(2), 809–817. https://doi.org/10.1017/dmp.2020.475

Greden, J. F., Valenstein, M., Spinner, J., Blow, A., Gorman, L. A., Dalack, G. W., Marcus, S., & Kees, M. (2010). Buddy-to-Buddy, a citizen soldier peer support program to counteract stigma, PTSD, depression, and suicide. *Annals of the New York Academy of Sciences*, *1208*, 90–97. https://doi.org/10.1111/j.1749-6632.2010.05719.x (Maribel PTP)

Gulliver, S. B., Pennington, M. L., Leto, F., Cammarata, C., Ostiguy, W., Zavodny, C., Flynn, E. J., & Kimbrel, N. A. (2016). In the wake of suicide: Developing guidelines for suicide postvention in fire service. *Death Studies, 40*(2), 121–128. https://doi.org/10.1080/07481187.2015.1077357

Hallett, C., & Schultz, J. (2015). *One hundred years of wartime nursing practices, 1854–1953*. Manchester University Press.

Hammond, J., & Brooks, J. (2001). The World Trade Center attack. Helping the helpers: the role of critical incident stress management. *Critical care (London, England)*, *5*(6), 315–317. https://doi.org/10.1186/cc1059

Hampson, M. E., Watt, B. D., Hicks, R. E., Bode, A., & Hampson, E. J. (2018). Changing hearts and minds: The importance of formal education in reducing stigma associated with mental health conditions. *Health Education Journal*, *77*(2), 198-211.

Harmer B, Lee S, Duong TVH, Saadabadi A. Suicidal Ideation. 2024 Feb 5. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan–. PMID: 33351435.

Harrington, M. J., & NAVAL POSTGRADUATE SCHOOL MONTEREY CA. (2014). New York City's First Responders: Enhancing Collaboration Between NYPD and FDNY.

Hartley, D. (2004). Rural health disparities, population health, and rural culture. *American journal of public health*, *94*(10), 1675-1678.

Hendrickson, R. C., Slevin, R. A., Hoerster, K. D., Chang, B. P., Sano, E., McCall, C. A., ... & Raskind, M. A. (2022). The impact of the COVID-19 pandemic on mental health, occupational functioning, and professional retention among health care workers and first responders. *Journal of general internal medicine*, *37*(2), 397-408.

Heroes Health Initiative. (2022, November 2). *Welcome to the Heroes Health Initiative, a support tool for health workers* [Mobile App]. *https://heroeshealth.unc.edu/*

Horan, K. A., Marks, M., Ruiz, J., Bowers, C., & Cunningham, A. (2021). Here for my peer: The future of first responder mental health. *International Journal of Environmental Research and Public Health*, *18*(21), 11097. https://doi.org/10.3390/ijerph182111097

House, J. S. (1981). Work stress and social support. *Addison-Wesley Publishing*.

Howard, J. M. (2000). Historical background to accidental death and disability: The neglected disease of modern society. *Prehospital Emergency Care*, *4*(4), 285–289. https://doi.org/10.1080/10903120090940958

Hruska, B., & Barduhn, M. S. (2021). Dynamic psychosocial risk and protective factors associated with mental health in Emergency Medical Service (EMS) personnel. *Journal of Affective Disorders*, *282*, 9–17. https://doi.org/10.1016/j.jad.2020.12.130

Jones, S., Agud, K., & McSweeney, J. (2020). Barriers and facilitators to seeking mental health care among first responders: "Removing the darkness." *Journal of the American Psychiatric Nurses Association*, *26*(1), 43–54. https://doi.org/10.1177/1078390319871997

Jorm, A. F. (2012). Mental health literacy: empowering the community to take action for better mental health. *American psychologist*, *67*(3), 231.

Katzman, J. G., Tomedi, L. E., Everly, G., Greenwood-Ericksen, M., Romero, E., Rosenbaum, N., Medrano, J., Menking, P., Archer, G. R. D., Martin, C., Dow, K. A., McCoy-Hayes, S., &

Katzman, J. W. (2021a). First responder resiliency ECHO: Innovative telementoring during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, *18*(9), 4900. https://doi.org/10.3390/ijerph18094900

Katzman, J. W., Tomedi, L. E., McCoy-Hayes, S., Richardson, K., Romero, E., Rosenbaum, N., Greenwood-Ericksen, M., Medrano, J., Archer, G. R. D., Jacoby, M. K., Everly, G., & Katzman, J. G. (2021b). The project ECHO first responder resiliency program: Curriculum development, listening groups and lessons learned to support providers virtually during a pandemic. *International Review of Psychiatry (Abingdon, England)*, *33*(8), 682–690. https://doi.org/10.1080/09540261.2021.2021867

Kleber R. J. (2019). Trauma and Public Mental Health: A Focused Review. *Frontiers in psychiatry*, *10*, 451. https://doi.org/10.3389/fpsyt.2019.00451

Klonsky, E. D., May, A. M., & Saffer, B. Y. (2016). Suicide, Suicide Attempts, and Suicidal Ideation. *Annual review of clinical psychology*, *12*, 307–330. https://doi.org/10.1146/annurev-clinpsy-021815-093204

Knowlton, A., Weir, B. W., Hughes, B. S., Southerland, R. J., Schultz, C. W., Sarpatwari, R., Wissow, L., Links, J., Fields, J., McWilliams, J., & Gaasch, W. (2013). Patient demographic and health factors associated with frequent use of emergency medical services in a midsized city. *Academic Emergency Medicine: Official Journal of the Society for Academic Emergency Medicine*, *20*(11), 1101–1111. https://doi.org/10.1111/acem.12253

Kshtriya, S., Kobezak, H. M., Popok, P., Lawrence, J., & Lowe, S. R. (2020). Social support as a mediator of occupational stressors and mental health outcomes in first responders. *Journal of Community Psychology*, *48*(7), 2252–2263. https://doi.org/10.1002/jcop.22403

Lee, E., McDonald, M., O'Neill, E., & Montgomery, W. (2021). Statewide ambulance coverage of a mixed region of urban, rural and frontier under travel time catchment areas. *International Journal of Environmental Research and Public Health*, *18*(5), 2638. https://doi.org/10.3390/ijerph18052638

Levi-Belz, Y., Blank, C. (2023). *The longitudinal contribution of prolonged grief to depression and suicide risk in the aftermath of suicide loss: The moderation role of self-criticism.* Journal of Affective Disorders *340*(1), 658-666. https://doi.org/10.1016/j.jad.2023.08.023

Lindow, J. C., Hughes, J. L., South, C., Minhajuddin, A., Gutierrez, L., Bannister, E., ... & Byerly, M. J. (2020). The youth aware of mental health intervention: impact on help seeking, mental health knowledge, and stigma in US adolescents. *Journal of Adolescent Health*, *67*(1), 101-107.

MacKenzie, E. J., & Carlini, A. R. (2008). *Configurations of EMS systems: A pilot study* (No. DOT-HS-810-911). United States. National Highway Traffic Safety Administration.

Marcin, J. P., Shaikh, U., & Steinhorn, R. H. (2016). Addressing health disparities in rural communities using Telehealth. *Pediatric research*, *79*(1), 169-176.

Marks, M. R., Bowers, C., DePesa, N. S., Trachik, B., Deavers, F. E., & James, N. T. (2017). REACT: A paraprofessional training program for first responders–A pilot study. *Bulletin of the Menninger Clinic*, *81*(2), 150–166. https://doi.org/10.1521/bumc.2017.81.2.150 (Maribel peer-to-peer)

Merriam-Webster. (n.d.). *Peer-to-peer.* In Merriam-Webster.com dictionary. Retrieved April 8, 2024, from htps://www.merriam-webster.com/dictionary/peer-to-peer

Merwin, E., Hinton, I., Dembling, B., & Stern, S. (2003). Shortages of rural mental health professionals. *Archives of psychiatric nursing*, *17*(1), 42-51.

Miller, C. A. (2019). *A time for all things: The life of Michael E. DeBakey.* Oxford University Press. Office of EMS, Powered by NHTSA's Office of EMS. (2024). *What is EMS?* https://www.ems.gov/what-is-ems/

Mongelli, F., Georgakopoulos, P., & Pato, M. T. (2020). Challenges and opportunities to meet the mental health needs of underserved and disenfranchised populations in the United States. *Focus*, *18*(1), 16-24.

Munjal, K. G., Silverman, R. A., Freese, J., Braun, J. D., Kaufman, B. J., Isaacs, D., ... & Prezant, D. J. (2011). Utilization of emergency medical services in a large urban area: description of call types and temporal trends. *Prehospital Emergency Care*, *15*(3), 371-380.

NHTSA's Office of EMS. (2023, May 16). *What is EMS?* EMS. https://www.ems.gov/what-is-ems/

National Library of Medicine (NIH) (2024). Regional medical programs. Abstract.
Regional medical programs (revised) - Digital Collections - National Library of Medicine (nih.gov)

Pozner, C. N., Zane, R., Nelson, S. J., & Levine, M. (2004). International EMS systems: The United States: past, present, and future. *Resuscitation*, *60*(3), 239–244. https://doi.org/10.1016/j.resuscitation.2003.11.004

Price, J. A. B., Landry, C. A., Sych, J., McNeill, M., Stelnicki, A. M., Asmundson, A. J. N., & Carleton, R. N. (2022a). Assessing the perceptions and impact of critical incident stress management peer support among firefighters and paramedics in Canada. *International Journal of Environmental Research and Public Health*, *19*(9), 4976. https://doi.org/10.3390/ijerph19094976

Reporting on Suicide. (2020). *Best practices and recommendations for reporting on suicide.* https://reportingonsuicide.org/recommendations/

Reinert, M., Fritze, D., & Nguyen, T. (2021). The state of mental health in America 2022.

Riccardi, E., Fontana, L., Pacella, D., Fusco, F., Marinaro, I., Costanzo, G., ... & Iavicoli, I. (2023). Impact of Covid-19 pandemic on psychological well-being of firefighters. *Safety and Health at Work*, *14*(3), 317-324.

Richard, J., Rebinsky, R., Suresh, R., Kubic, S., Carter, A., Cunningham, J. E. A., Ker, A., Williams, K., & Sorin, M. (2022). Scoping review to evaluate the effects of peer support on the

mental health of young adults. *BMJ open*, *12*(8), e061336. https://doi.org/10.1136/bmjopen-2022-061336

Rivard, M. K., Cash, R. E., Woodyard, K. C., Crowe, R. P., & Panchal, A. R. (2020). Intentions and motivations for exiting the emergency medical services profession differ between emergency medical technicians and paramedics. *Journal of Allied Health*, *49*(1), 53–59.

Rothes, I. A., Nogueira, I. C., Coutinho da Silva, A. P., & Henriques, M. R. (2020). When emergency patients die by suicide: the experience of prehospital health professionals. *Frontiers in Psychology, 11,* 2036. https://doi.org/10.3389/fpsyg.2020.02036

Rowlands, H., Aylwin, F. E., Hotopf, M., Rayner, L., Simpson, A., Lavelle, G., & Lawrence, V. (2023). A qualitative exploration of the psychosocial needs of people living with long-term conditions and their perspectives on online peer support. *Health Expectations*, *26*(5), 2075–2088. https://doi.org/10.1111/hex.13814) (Maribel peer-to-peer)

Rutkow, E. I., & Rutkow, I. M. (2004). George Crile, Harvey Cushing, and the Ambulance Americaine: military medical preparedness in World War I. *Archives of Surgery (Chicago, Ill. : 1960)*, *139*(6), 678–685. https://doi.org/10.1001/archsurg.139.6.678

Safi, H. J. (2020, September 5). Book review: A time for all things: The life of Michael E. DeBakey, Craig A. Miller. *Journal of Vascular Surgery*, *72*(4), 1502–1504. https://doi.org/10.1016/j.jvs.2020.06.113

Sakru, N., Aldi, F. I., Cakmakci, B., Arabaci, F., & Afyoncu, E. (2023). Peer education model in Trakya University faculty of medicine. *BMC Medical Education*, *23*(1), 733. https://doi.org/10.1186/s12909-023-04739-7)

Salvatore, T. (2022, April 18). *Beyond BLS: Suicidality and postvention.* EMS1. https://www.ems1.com/suicide/articles/beyond-bls-suicidality-and-postvention-wIQmfbsqG8wlBaRd/

Santos, J. C., Barros, S., & Santos, I. M. M. (2016). Stigma: The Perspective of Workers on Community Mental Health Services-Brazil. *Global qualitative nursing research*, *3*, 2333393616670442. https://doi.org/10.1177/2333393616670442

Shah, M. N. (2006). The formation of the emergency medical services system. *American Journal of Public Health*, *96*(3), 414-423.

Shalaby, R., & Agyapong, V. (2020). Peer Support in Mental Health: Literature Review. *Journal of Medical Internet Research*, *22*(6), N.PAG. https://doi.org/10.2196/15572

Sholl, M., Taillac, P., Adelgais, K. M., Alter, R., QAS, B., & Gurley, K. L. (2016). Final Report to the National Highway Safety Traffic Administration (NHTSA).

Short, M. F., (2023) *Promoting suicide safety for EMS providers.* American Ambulance Association. https://ambulance.org/member-center/member-toolkits/promoting-suicide-safety-for-ems-providers/

Sist, L., Savadori, S., Grandi, A., Martoni, M., Baiocchi, E., Lombardo, C., & Colombo, L. (2022). Self-Care for Nurses and Midwives: Findings from a Scoping Review. *Healthcare (Basel, Switzerland)*, *10*(12), 2473. https://doi.org/10.3390/healthcare10122473

Smith, E., Dean, G., & Holmes, L. (2021). Supporting the mental health and well-being of first responders from career to retirement: A scoping review. *Prehospital and Disaster Medicine*, *36*(4), 475–480. https://doi.org/10.1017/S1049023X21000431

Southwick, S. M., Bonanno, G. A., Masten, A. S., Panter-Brick, C., & Yehuda, R. (2014). Resilience definitions, theory, and challenges: interdisciplinary perspectives. *European journal of psychotraumatology*, *5*, 10.3402/ejpt. v5.25338. https://doi.org/10.3402/ejpt.v5.25338

Stanley, I. H., Hom, M. A., & Joiner, T. E. (2016). A systematic review of suicidal thoughts and behaviors among police officers, firefighters, EMTs, and paramedics. *Clinical Psychology Review*, *44*, 25–44. https://doi.org/10.1016/j.cpr.2015.12.002

Substance Abuse and Mental Health Services Administration (SAMHSA). (2018). *First responders: behavioral health concerns, emergency response, and trauma*. SAMHSA.gov. https://www.samhsa.gov/sites/default/files/dtac/supplementalresearchbulletin-firstresponders-may2018.pdf

Szeto, A., Dobson, K. S., & Knaak, S. (2019). The road to mental readiness for first responders: A meta-analysis of program outcomes. *The Canadian Journal of Psychiatry*, *64*(1_suppl). https://doi.org/10.1177/0706743719842562

Tang, J. P. S., Liu, T., Lu, S., Sing, C. Y., Sze, L. C. Y., Lum, T. Y. S., & Tse, S. (2022). “It was the deepest level of companionship:” Peer-to-peer experience of supporting community-dwelling older people with depression - A qualitative study. *BMC Geriatrics*, *22*(1), 443. https://doi.org/10.1186/s12877-022-03121-4)

Tiesman, H. M., Elkins, K. L., Brown, M., Marsh, S., & Carson, L. M. (2021, April 6). *Suicides among first responders: A call to action.* Centers for Disease Control and Prevention. https://blogs.cdc.gov/niosh-science-blog/2021/04/06/suicides-first-responders/

Tjin, A., Traynor, A., Doyle, B., Mulhall, C., Eppich, W., & O'Toole, M. (2022). Turning to 'trusted others:' A narrative review of providing social support to first responders. *International Journal of Environmental Research and Public Health*, *19*(24), 16492. https://doi.org/10.3390/ijerph192416492

U.S. Department of Veterans Affairs. (2024, January 1). *Mindfulness Coach* [Mobile App]. VA Mobile. https://mobile.va.gov/app/mindfulness-coach

Wang, D., & Gupta, V. (2023). Crisis Intervention. In *StatPearls*. StatPearls Publishing.

Walling M. A. (2021). Suicide Contagion. *Current trauma reports*, *7*(4), 103–114. https://doi.org/10.1007/s40719-021-00219-9

Wild, J., El-Salahi, S., & Esposti, M. D. (2020). The effectiveness of interventions aimed at improving well-being and resilience to stress in first responders. *European Psychologist*, *25*(4), 252–271. https://doi.org/10.1027/1016-9040/a000402

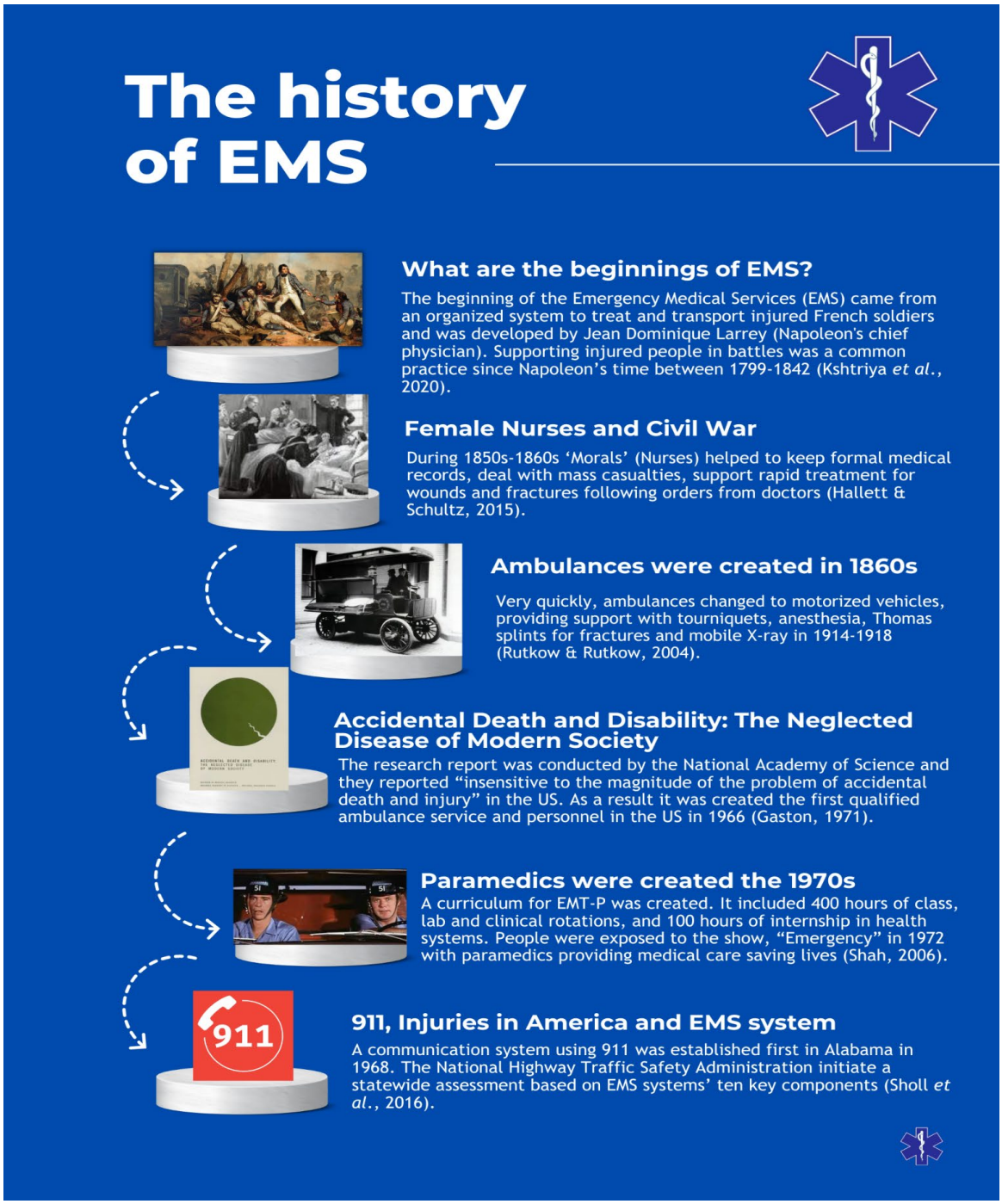
Wong, E. (2023). The Mayor's Office of Community Mental Health.

World Health Organization (WHO) (2024). Providing Peer support for Adolescents and young people living with HIV. https://www.who.int/publications/i/item/WHO-CDS-HIV-19.27

YOU: ResponderStrong. (n.d.). *ResponderStrong* [Mobile App]. *https://you.responderstrong.org/*

APPENDICES

Appendix A: The History of EMS



Appendix B: Firefighter/EMT Suicide Screening FFBHA

Firefighter/EMT Suicide Screening

Below is a self-screening for suicide ideations for firefighters/EMT. Please circle either Y= Yes, or N=No. When you have completed screening please review your score at the end of the screening.

1. Are you feeling like a burden to your family, friends, or Fire Company or EMS organization? Y/N
2. Do you feel the world would be a better place without you in it? Y/N
3. Have you started to isolate yourself from others in the firehouse or EMS location? Y/N At Home? Y/N
4. Have you found yourself turning to alcohol or other addictive behaviors to make yourself feel better? Y/N
5. Have you or someone close to you noticed that your sleeping patterns have changed? Y/N
6. Are you thinking, "What's the use?" when going to the firehouse or responding on calls? Y/N
7. Do you find yourself thinking about or performing unnecessary risks while at a fire scene or on an emergency incident? Y/N
8. Have you found an increased or new interest in risky activities outside the firehouse/EMT organization such as: sky-diving, reckless motorcycle riding or purchasing guns? Y/N
9. Are you displaying unexplained angry emotions or have you been disciplined recently for anger towards other firefighters/EMTs? Officers? Or the Public within the last few months? Y/N
   (Any option will receive a circle of Yes)
10. Have you been told that "you have changed" by: Friends? Family? Fellow coworkers? Y/N
    (Any option will receive a circle of Yes)
11. Does your family have a history of a suicide? Y/N
12. Do you have a history of feeling depressed? Y/N
13. Do you have feelings of hopelessness? Y/N
14. Do you feel like killing yourself? Y/N
15. Have you created plans to kill yourself? Y/N

16. Have you recently attempted to kill yourself? Y/N

Scoring: Total the amount of (Yes) circled.
Score:_____

If you circled question 14, 15 or 16, **SEEK HELP** IMMEDIATELY by

Dialing 911

or calling the National Suicide Prevention Lifeline **1-800-273-8255 or 988**

Once you have reached one of the above, call a trusted family member, friend, chaplain, or counselor.

Firefighter Behavioral Health Alliance (FBHA) recommends that if a person answers YES to at least three of these questions, it would be recommended that you contact a local Mental Health Care Professional that deals with firefighters/EMTs that suffer from suicidal ideations and depression. If you need assistance in finding a counselor in your area, contact FBHA for further information at 847-209-8208.

Appendix C: Peer to Peer Program Template EMS Agency

Peer to Peer Program Template EMS Agency

Agency: [Company]_____

Suggested steps:	Status	Notes:
• Create a Mission statement.....	☐	_____
• Determine a Chair/Co-Chair of the Peer-to-Peer Program.....	☐	_____
• Administration/Roles	☐	_____
• Process	☐	_____
• Training.....	☐	_____
• Confidentiality.....	☐	_____
• Program Models.....	☐	_____
• Program Promotion.....	☐	_____
• Program Evaluation/Feedback.....	☐	_____

Appendix D: Sample Peer Support Program Intake Form

Peer Support Program Intake Form Number 0001

Client Information and Consent

Name

DOB | Address

City | Zip

Phone | Email

Emergency Contact

Name: _____ **Phone:** _____
Relationship: _____ **Notes:** _____

PERSONAL INFORMATION	**Yes**	**No**
1. Do you agree by being contacted by a peer to peer coach from the agency? (by phone or email)	◯	◯
2. Do you know how the peer-to-peer program works?	◯	◯
3. Have you had a traumatic event that you need to talk about? Explain:	◯	◯
4. Do you need more information and resources?	◯	◯
5. Are you satisfied with the information provided?	◯	◯

What information and resources did you receive?

1.
2.
3.

Next Steps:

1.
2.
3.

I am aware this information is confidential within the peer-to-peer program.

◯ **I agree to the terms of service explained today.**

Signature

Date and Time

This form was completed by: _____

Appendix E: Suggested Template for Peer-To-Peer

Checklist Step	Description
Create a Mission Statement	Creating a mission statement will help to define the culture of the Peer Support Program within the agency and should address the ultimate goal of the program. It may be helpful to include the 5 W's—Who? What? Where? When? Why?
Determine a Chair/Co-Chair of the Peer-to-Peer Program	Determining a leader of the Peer Support Team will help create an organizational structure and streamline processes and decision-making.
Administration/Roles	It is important to clearly outline roles and responsibilities within the Peer Support Program. Consider the following: -Who will be on the Peer Support Team? -How will Peers be recruited? -What roles will they serve? -How will the Peer Support Team be supported in their time of need? -How will peers be retained from year to year and/or replaced when needed (ie: job transfers, retirement, etc.)?
Process	Determine processes for: -Intake/referrals (See Intake Form Example) -Guidelines for response times (ie: Initial response within 24-48 hours, etc.) -Peer matching (ie: matching by similar experiences, long-serving members with new service members, matching upon request of a peer, etc.) -Peer communication (consider creating an email address and phone number associated with the Peer Support Program) -Scheduling Peer-to-Peer interactions
Training	Determine how your Peer Support Team will be trained. Consider: -Who will conduct the training (ie: social workers, mental health counselors, psychologists, etc.) -Standards for how many training hours Peers will be required to complete to begin serving and also to maintain status as a Peer -Continuing education opportunities
Confidentiality	It is of utmost importance that the Peer Support Program protects the confidentiality and personal information of those seeking help, but also relays the limitations of confidentiality. *Consider a confidentiality agreement for both parties that clearly states what information will be protected and what information can

	be shared with a third party (ie: threats of harm to self/others, criminal involvement, substance use/misuse on the job, etc.). *Consider consulting the mental health professional associated with the Peer Support Program training to receive appropriate guidelines for determining limitations of the confidentiality agreement
Program Models	It may be beneficial for the Peer Support Program to consider the different options for Peer Support, such as location and scheduling (neither should not be barriers to providing support to service members in need). Examples of options include: In-Person Support: If in-person peer support is preferable, providing convenient scheduling and options for a comfortable, safe space for peer interaction will help with facilitation. Telephone/Virtual Support: Due to the often difficult and abnormal schedules of service members, consider providing options for texting, calling, and/or video calling for communication among peers where in-person interaction is inconvenient or not preferable.
Program Promotion	Determine how the program will be promoted to make service members aware of services provided. Additionally, consider how stigma will be addressed within the agency. Ideas for sharing information can include but are not limited to: -In-station bulletin postings/break room -The agency's social media page -The county EMS Council page/communications -During required trainings/continuing education
Program Evaluation/Feedback	Determine how the success of the Peer Support Program will be measured. Examples: -How many inquiries are received -How many new peers using services in a calendar year -How many group sessions run -Surveys to assess satisfaction with the program

Appendix F: Postvention Activities - Best Practices Checklist

Purpose: This checklist is designed to assist leaders in guiding their response to suicides and suicide attempts, as well as assist in informing EMS agencies of best practices surrounding postvention activities.

Adapted from Riverside Trauma Center "Riverside Trauma Center Prevention Guidelines"

1. Verification of death and cause	• Verification of death:
	  ○ Identity
	  ○ Time
	  ○ Date
	  ○ Location
	  ○ Whether the death was a suicide/ Circumstances surrounding the death
	• No official release of information should be distributed until the circumstances are confirmed by an appropriate authority, i.e., police chief, medical examiner, immediate family

2. Coordination of external and internal resources	• Mobilize and organize internal and external resources:
	  ○ Crisis response teams should be notified
	  ○ Delegate actions and responsibilities
	  ○ Utilize Employee Assistance Programs (EAP), if available

3. Dissemination of information	• Distribute a written statement that includes:
	  ○ Factual information about the death and acknowledgment that is was a suicide
	  ○ Condolences to the family and friends
	  ○ Plans to provide support for those impacted
	  ○ Funeral plans
	  ○ Changes in work schedule during upcoming days, if applicable

4. Support for those impacted by the death	• Identify those most impacted by the death and provide support: ○ Close friends, colleagues who work the same shift, etc.
5. Identification of those at risk and prevention of contagion	• Identify those at risk for suicide attempts or other risky behavior after a suicide death: ○ At risk can include having a history of suicidal behavior or depression, history of tragic loss or suicide in their family, peers who start to identify

	with the deceased, staff that likely feel responsible for contributing to the death

6. Commemoration of the deceased	• Facilitate healthy grieving:
	  ○ Take lead in offering public condolences to family and friends
	  ○ Encourage appropriate commemorative activities
	  ○ Allow flexibility in work schedules so funeral arrangements/ services can be attended more easily
	  ○ Ensure continuity of commemoration for the deceased, regardless of cause of death

7. Psychoeducation on grieving, depression, PTSD, and suicide	• Provide individuals with an understanding of the grieving process:
	  ○ Education regarding the signs and symptoms of depression, PTSD, and suicidality
	  ○ Provide alternative options for those coping with difficulties

8. Screening for depression and suicidality	• Screenings can include, but are not limited to:
	  ○ In-person screenings by qualified professionals or via EAP
	  ○ Online tools, such as, Screening for Mental Health
	  ○ Train managers to recognize warning signs of depression and suicidality

9. Provision of services in the case of a second or subsequent suicide	• Develop guidelines, protocols, and other internal resources to guide you in case of a subsequent suicide • Create a committee or support group • Develop coordinated plans for responding to suicidal ideations
10. Linkage to resources	• Link EMS personnel to resources for continued, local support as needed

Appendix G: Sample Pre-Planned Notification Letter

MONTH, DAY, YEAR

Dear all,

I am writing about a tragedy that happened on [Day of the week] [Month] [Day] at [TIME]. [NAME of INDIVIDUAL] died by suicide. I am so sorry to share this news; no words can express the sadness and profound loss we are experiencing.

[Insert a few general sentences about the individual] Our thoughts are with their family as well as all of their friends and loved ones.

This is a shock to us all; everyone responds differently to news like this. During this time, it is so important for our community to be there for each other. I encourage us all to spend time today and in the upcoming days talking and sharing space with each other in whatever way feels comforting.

There are many resources available to support the members of our community during this difficult time. The Crisis Text Line is a texting service for emotional crisis support. To text with a trained helper, text SAVE to 741741. It is free, available 24/7, and confidential. The 988 Suicide and Crisis Lifeline is a hotline for individuals in crisis or for those looking to help someone else. To speak with a trained listener, call 988. Visit 988lifeline.org for crisis chat services or for more information, visit The Balance of Mental Health and Well Being for all EMS Providers page located on the New York State Department of Health website.

[Insert information regarding funeral arrangements or statement mentioning that more information will follow]

With a heavy heart,

[NAME]

Appendix H: Glossary

1. **Emergency Medical Services (EMS)**: A system that responds to emergencies requiring highly competent pre-hospital clinicians (NHTSA's Office of EMS, 2023).
2. **Postvention**: interventions aimed at supporting bereaved survivors, caregivers, and medical professionals; de-stigmatizing suicide as a tragic event; aiding in the healing process; and acting as a secondary preventive measure to reduce the likelihood of recurrent suicides brought on by complex grief, contagion, or unresolved trauma (Erlich et al., 2017).
3. **Suicide prevention**: tactics and programs designed to lower the suicide rate and aid those who are suicidally inclined (Barnhorst et al., 2021).
4. **Mental health support**: help and resources given to people with mental health issues with the goal of fostering recovery and well-being (Richard et al., 2022).
5. **First responders**: individuals who have been trained to offer prompt assistance during emergencies such as paramedics, firefighters, and police officers (Bevan et al., 2022).
6. **Peer support**: support provided by individuals who have lived similar experiences, often used to help others cope with challenges and stressors (Richard et al., 2022).
7. **Trauma**: psychological and emotional response to a distressing event or experience, often resulting in feelings of fear, helplessness, or horror (Kleber, 2019).
8. **Crisis intervention**: immediate assistance provided to individuals experiencing a mental health crisis or emotional distress, aimed at stabilizing the situation and ensuring safety (Wang & Gupta, 2023).
9. **Resilience**: the ability to adapt and bounce back from adversity, trauma, or stress (Southwick et al., 2014).
10. **Coping mechanisms:** strategies and behaviors individuals use to manage stress, emotions, and challenges in their lives (Algorani & Gupta, 2023).
11. **Stigma:** negative attitudes, beliefs, or stereotypes linked with mental illness or seeking treatment for mental health difficulties (Santos et al., 2016).
12. **Critical incident stress:** psychological and emotional reactions that individuals have to catastrophic experiences or crucial situations (Hammond & Brooks, 2001).
13. **Debriefing:** organized procedure for sharing and processing experiences, feelings, and reactions after a crucial crisis or traumatic occurrence (Evans et al., 2023).
14. **Self-care:** refers to the practices and activities that individuals engage in to improve their physical, emotional, and mental health (Sist et al., 2022).

15. **Suicide attempt:** an act in which a person purposefully damages themself with the intent to die but does not die (Klonsky et al., 2016).
16. **Suicide behavior:** any action that could lead to a suicide attempt or completion, such as self-harm, suicidal thinking, or preparation acts (Klonsky et al., 2016).
17. **Suicide contagion:** the phenomena in which being exposed to suicide or suicidal conduct enhances the chance of others developing suicidal ideation and behavior (Walling, 2021).
18. **Suicide ideation:** thoughts or dreams of taking one's own life, which can range from transient to elaborate preparations (Klonsky et al., 2016).
19. **Suicide contemplation**: the act of giving suicide some serious thought or consideration, entailing thinking about ending one's life, frequently coupled with depressing thoughts or the conviction that there is no other way to solve one's issues (Harmer et al., 2024).