



2023 Urban Fire Forum (UFF) Position Statement

Support for Increasing Efforts on Mental Health & Wellbeing

In the United States (US), fire departments are more likely to suffer a firefighter suicide than any other on-duty death associated with causes such as burns, collapse, or cardiovascular events¹. Firefighters and Emergency Medical Services (F/EMS) personnel are on the frontlines of response for every type of community trauma, ranging from major catastrophic events such as storms, train derailments, school shootings, mass casualties, and terrorist attacks, to more routine emergencies like heart attacks, drownings, house fires, and rescues.² Emerging evidence underscores the negative mental health impact on F/EMS personnel from this chronic, repeated exposure to trauma. This repeated exposure has been associated with high rates of depression³⁻⁷, anxiety⁸⁻¹⁰, and post-traumatic stress disorder (PTSD)^{5,8,11-23}. Recognizing these challenges, the F/EMS service has increasingly identified ways to help those suffering. The efforts primarily include peer support programs²⁴⁻²⁷, efforts to decrease the stigma surrounding mental health^{19,28}, department resources^{25,29,30}, and the provision of psycho-education programs^{29,31-33}.

As fire and emergency response agencies shift their focus towards adopting an all-hazards response approach, the responsibilities of personnel have evolved significantly. They have moved beyond their traditional role of primarily engaging in fire suppression activities to encompass a wide range of increasingly intricate and volatile emergency response operations. Present-day personnel are responsible for rescue operations, hazardous materials management, responding to natural disasters and domestic attacks, and providing emergency medical services (EMS). In many regions, these personnel serve as the primary providers of EMS for their communities, thereby serving as the crucial medical safety net. These events may involve attending to a parent experiencing a heart attack, rescuing a drowning child, responding to a car accident with severely injured adolescents, battling fires with the possibility of trapped victims, or, more recently, dealing with the challenges of responding to COVID-19 patients and their families. The role of F/EMS personnel demands their readiness to respond at any time, day, or night, which introduces an additional layer of stress due to interrupted sleep patterns and the physical and mental demands of shift work^{4,35,36}. In the fire service, there is a common saying often quoted in the 2005 documentary, *Into the Fire*, that aptly captures today's reality, "Your worst day is our every day"³⁷. It comes as no surprise that regular exposure to these demanding and often distressing events can take a toll on the mental health of firefighters^{2,38,39}.

Mental Health Issues Among F/EMS Personnel. The incidence of depression or depressive symptoms has been assessed in various groups of U.S. firefighters, and the majority of these studies have reported a higher prevalence of depression compared to the general population^{6,40,41}. The lifetime prevalence of healthcare provider-diagnosed depression among US males and females is 5.7% and 11.7%, respectively⁴². In stark contrast, male career and volunteer firefighters in the Midwest exhibit concerning levels of depression as high as 20%⁴⁰. Additionally, in a nationwide cohort of male career firefighters, approximately 6% had received a diagnosis of depressive disorder from a healthcare provider⁴³. The situation is even more pronounced among

female firefighters where, 25-42% screened positive for depression, and up to 35% had a lifetime prevalence of healthcare provider diagnosis of depressive disorder⁶. Further highlighting the impact of their challenging work environment Tak et al.⁴⁴ found that 27% of the firefighters screened positive for depressive symptoms three months after responding to Hurricane Katrina.

Just as with depression, the existing data on PTSD among firefighters reveals a much higher prevalence^{9,16,45,46} than the general population, where the prevalence is 3.5%⁴⁷. In a comparative analysis by Corneil et al. PTSD screenings among US and Canadian firefighters revealed an alarming prevalence of 22% among two large US fire departments and 17% among a large Canadian department¹⁶. Examinations of PTSD prevalence also following major disasters and crises yielded disturbing findings. For instance, 13% of firefighters responding to the Oklahoma City Bombing reported having PTSD symptoms^{45,46}. One common maladaptive coping mechanism for managing depression and PTSD is substance misuse. Individuals who experience emotional distress and PTSD often report the development or worsening of risky drinking behaviors. For instance, among firefighters who responded to the Oklahoma City bombing, studies described alcohol disorders as “endemic” particularly among those who turned to alcohol as a coping mechanism, which was associated with poorer overall functioning^{45,46}. Our previous studies indicated that 56% of male career firefighters, 45% of male volunteer firefighters, and 40% of female career firefighters reported binge drinking in the past 30 days^{6,40}. Similarly, Carey et al. found that 58% of firefighters in the Northeast US binge drank over the past 30 days⁴. Using alcohol as a coping mechanism for distress may explain the substantially higher prevalence of binge drinking among firefighters compared to the general population, where the prevalence is under 20%⁴⁸.

The high prevalence of depression, PTSD associated symptoms, and substance abuse among firefighters is particularly troubling because it may contribute to a distressing number of suicides. A recently published report found more firefighters died by suicide than by line-of-duty deaths in 2017⁴⁹. The Firefighter Behavioral Health Alliance estimates only 40% of firefighter suicides are reported to their website, and they estimate the rate of suicide for firefighters to be 18 per 100,000 individuals, which is higher than the general US population (13/100,000)⁴⁹. Stanley and colleagues⁵⁰ conducted a survey of 1,000 firefighters and found that 46.8% of the 1,000 firefighters responding to their survey reported suicidal ideation, 19.2% reported suicidal plans, and 15.5% reported a past suicidal attempt throughout their careers. Similarly, a survey of more than 7,000 respondents conducted by the IAFF and NBC news found that 19% of firefighters reported having suicidal thoughts, 27% reported struggling with substance abuse, and 65% reported they are haunted by memories of bad calls⁵¹. While determining the exact prevalence of suicide ideation and attempts is challenging, the number of firefighters who report dealing with thoughts of suicide on existing surveys is troubling. Depression, PTSD, and alcohol abuse are often precursors to suicide ideation and attempts. Boffa et al.¹⁴ found that among almost 900 firefighters from across the US, firefighters with more significant PTSD symptoms were more likely to report suicidal ideation and suicide attempts in their lifetime. In addition, depression and PTSD symptom severity were positively associated with lifetime suicidal ideation and lifetime suicide attempts among over 3,000 firefighters from a large urban fire department²⁰.

Untreated behavioral health issues can also have a profound impact on job performance and safety, posing serious concerns for both first responders and the communities they serve. For example, a study conducted by Regehr and LeBlanc⁵² revealed that first responders with PTSD, when exposed to simulated emergencies in a controlled research environment, exhibited significant declines in their performance on complex cognitive tasks. Complex cognitive firefighting tasks could include size up and situational awareness on the fireground. Similarly, in a study of over 3,000 Greek firefighters, those who had symptoms of PTSD were found to have

higher rates of work-related injuries, possibly due to the effects of lack of concentration and decreased cognitive functioning⁵³. PTSD is a significant risk for impaired decision-making ability and increased injury among firefighters.

Beyond Trauma Exposure. In addition to trauma exposure, research indicates several factors put firefighters at higher risk of mental health disorders. Similar to studies in the general population^{54,55}, research in the fire service has found significant relationships between experiences of *discrimination and harassment* and negative psychiatric outcomes^{56,57}. In a study of nearly 2,000 female firefighters⁵⁶, our team found that those who had experienced the most significant levels of discrimination and harassment had more than double the risk of having clinically significant symptoms of PTSD (6.9% vs. 16.5%) compared to those who had experienced little or no discrimination or harassment. A similar pattern existed for depression, with high levels of discrimination/harassment being linked to higher levels of depression (15.1% vs. 43.3%) and anxiety (average score 16.4 vs. 21.1) as well as injury in the past year (36.8% vs. 56.3%) and lost workdays (2.8 days vs 4.0 days).

Progress on Mental Health. Over the past two decades significant efforts have led to improvements in addressing mental health and well-being, resilience, and response to mental health challenges. With increased awareness of the mental health impact of both chronic and acute exposures, the national fire service has made a concerted effort to support the mental health of its members with significant progress. Starting two decades ago, the National Fallen Firefighters Foundation (NFFF) launched the Everyone Goes Home Initiative⁵⁸ to reduce preventable firefighter fatalities. Within this initiative, 16 comprehensive strategies were established, and one of these, "Initiative 13⁵⁹," was dedicated to enhancing mental health support for F/EMS personnel. The work launched efforts to prevent mental health disorders through education and awareness, bolstering peer support in departments, and encouraging organizational support²⁹. Similarly, the International Association of Firefighters (IAFF) launched its behavioral health initiatives that include training of peer support personnel for departments, online awareness level resources, resiliency training, and the development of a cadre of disaster response personnel to support the mental health of those responding to large scale disasters³³. Similarly, the National Volunteer Fire Council (NVFC) developed a toolkit that includes a helpline, department resources, a directory of behavioral health providers, and department education. National efforts from these groups and others also have focused on decreasing the stigma related to mental health struggles⁶⁰.

Emerging Issues. The fire service has been recognized for its progress in addressing mental health challenges and promoting psychological health and wellness⁶¹; the increased focus has led to several emerging opportunities. While resources have been developed, broader adoption and more coordinated efforts are needed to continue the successes developed within the fire service to ensure all personnel at all times are supported.

The Metropolitan Fire Chiefs Association expresses its general support for the following steps for improving the mental health and well-being of the nation's fire service:

- **Department Resources.** Every department should support the mental health and well-being of their members by building a behavioral health program including but not limited to: peer support, ongoing awareness and education for the entire department, tools on building resilience, education starting in the recruit academy, and integration of behavioral health referral resources to culturally competent mental health support.

- **Reducing Stigma.** Continued efforts must focus on decreasing the stigma around mental health and wellbeing through education and awareness, encouraging open and honest communication about mental health, leadership buy-in on the issue's importance, reducing stigmatizing language, supporting regular mental health screenings, encouraging peer-led activities, and celebrating resilience.
- **Regional Resources.** The fire service must support building unified local, regional, and state mental health and well-being approaches that leverage resources, tools, technology, and training.
- **Leadership Support.** Resources are needed to support fire service leaders' mental health and well-being, often overlooked in the traditional peer support model.
- **Post Disaster Response.** National efforts must focus on leveraging the lessons learned from past disasters to ensure that all personnel and communities exposed to natural and manmade disasters, terrorist events, mass shootings, and the like are provided the mental health and well-being resources necessary to limit the harmful impact of such exposures.
- **High Risk.** All departments should make personnel aware of workplace incivility's negative physical and mental health impacts and encourage and reinforce inclusive environments for all personnel.

References Cited

1. Stanley IH, Boffa JW, Smith LJ, Tran JK, Schmidt NB, Joiner TE, Vujanovic AA. Occupational stress and suicidality among firefighters: Examining the buffering role of distress tolerance. *Psychiatry Res.* Aug 2018;266:90-96. doi:10.1016/j.psychres.2018.05.058
2. Jahnke SA, Poston WSC, Haddock CK, Murphy B. Firefighting and mental health: Experiences of repeated exposure to trauma. *Work.* 2016/02/15/ 2016;53(4):737-744. doi:10.3233/WOR-162255
3. Cheng P, Wang L, Zhou Y, Ma W, Zhao G, Zhang L, Li W. Post-traumatic stress disorder and depressive symptoms among firefighters: a network analysis. *Frontiers in Public Health.* 2023 2023;11:1096771. doi:10.3389/fpubh.2023.1096771
4. Carey MG, Al-Zaiti SS, Dean GE, Sessanna L, Finnell DS. Sleep problems, depression, substance use, social bonding, and quality of life in professional firefighters. *J Occup Environ Med.* Aug 2011;53(8):928-33. doi:10.1097/JOM.0b013e318225898f
5. Gulliver SB, Zimering RT, Knight J, et al. A prospective study of firefighters' PTSD and depression symptoms: The first 3 years of service. *Psychol Trauma.* 2021/01// 2021;13(1):44-55. doi:10.1037/tra0000980
6. Haddock CK, Poston WSC, Jahnke SA, Jitnarin N. Alcohol Use and Problem Drinking among Women Firefighters. *Womens Health Issues.* Nov-Dec 2017;27(6):632-638. doi:10.1016/j.whi.2017.07.003
7. Tak S, Driscoll R, Bernard B, West C. Depressive symptoms among firefighters and related factors after the response to Hurricane Katrina. *J Urban Health.* Mar 2007;84(2):153-61. doi:10.1007/s11524-006-9155-1
8. Cherry N, Galarneau J-M, Melnyk A, Patten S. Prevalence of Mental Ill-Health in a Cohort of First Responders Attending the Fort McMurray Fire. *Canadian Journal of Psychiatry Revue Canadienne De Psychiatrie.* 2021/08// 2021;66(8):719-725. doi:10.1177/0706743720974824
9. Wagner SL, White N, Randall C, et al. Mental Disorders in Firefighters Following Large-Scale Disaster. *Disaster Med Public Health Prep.* 2021/08// 2021;15(4):504-517. doi:10.1017/dmp.2020.61
10. Wright HM, Fuessel-Hermann D, Pazdera M, et al. Preventative Care in First Responder Mental Health: Focusing on Access and Utilization via Stepped Telehealth Care. *Front Health Serv.* 2022;2:848138. doi:10.3389/frhs.2022.848138

11. Armstrong D, Shakespeare-Finch J, Shochet I. Predicting post-traumatic growth and post-traumatic stress in firefighters. *Australian Journal of Psychology*. 2014/03/01/ 2014;66doi:10.1111/ajpy.12032
12. Ben KSD, Scotti JR, Chen Y-C, Fortson BL. Prevalence of posttraumatic stress disorder symptoms in firefighters. *Work & Stress*. 2006/03/01/ 2006;20(1):37-48. doi:10.1080/02678370600679512
13. Berninger A, Webber MP, Cohen HW, et al. Trends of elevated PTSD risk in firefighters exposed to the World Trade Center disaster: 2001-2005. *Public Health Rep*. 2010/08//Jul undefined 2010;125(4):556-566. doi:10.1177/003335491012500411
14. Boffa JW, Stanley IH, Hom MA, Norr AM, Joiner TE, Schmidt NB. PTSD symptoms and suicidal thoughts and behaviors among firefighters. *J Psychiatr Res*. 2017/01// 2017;84:277-283. doi:10.1016/j.jpsychires.2016.10.014
15. Cheng P, Wang L, Zhou Y, Ma W, Zhao G, Zhang L, Li W. Post-traumatic stress disorder and depressive symptoms among firefighters: a network analysis. *Front Public Health*. 2023;11:1096771. doi:10.3389/fpubh.2023.1096771
16. Corneil W, Beaton R, Murphy S, Johnson C, Pike K. Exposure to traumatic incidents and prevalence of posttraumatic stress symptomatology in urban firefighters in two countries. *Journal of Occupational Health Psychology*. 1999 1999;4(2):131-141. doi:10.1037/1076-8998.4.2.131
17. Del Ben KS, Scotti JR, Chen Y-C, Fortson BL. Prevalence of posttraumatic stress disorder symptoms in firefighters. *Work & Stress*. 2006 2006;20(1):37-48. doi:10.1080/02678370600679512
18. Katsavouni F, Bebetos E, Malliou P, Beneka A. The relationship between burnout, PTSD symptoms and injuries in firefighters. *Occup Med (Lond)*. Jan 2016;66(1):32-7. doi:10.1093/occmed/kqv144
19. Kim JE, Dager SR, Jeong HS, et al. Firefighters, posttraumatic stress disorder, and barriers to treatment: Results from a nationwide total population survey. *PloS One*. 2018 2018;13(1):e0190630. doi:10.1371/journal.pone.0190630
20. Martin CE, Tran JK, Buser SJ. Correlates of suicidality in firefighter/EMS personnel. *Journal of Affective Disorders*. 2017/01/15/ 2017;208:177-183. doi:10.1016/j.jad.2016.08.078
21. Meyer EC, Zimering R, Daly E, Knight J, Kamholz BW, Gulliver SB. Predictors of posttraumatic stress disorder and other psychological symptoms in trauma-exposed firefighters. *Psychological Services*. 2012/02// 2012;9(1):1-15. doi:10.1037/a0026414
22. Nydegger R, Nydegger L, Basile F. Post-Traumatic Stress Disorder And Coping Among Career Professional Firefighters. *American Journal of Health Sciences (AJHS)*. 2011/05/23/ 2011;2(1):11-20.
23. Pennington ML, Carpenter TP, Synett SJ, et al. The Influence of Exposure to Natural Disasters on Depression and PTSD Symptoms among Firefighters. *Prehospital and Disaster Medicine*. 2018/02// 2018;33(1):102-108. doi:10.1017/S1049023X17007026
24. Cherry N, Galarneau J-M, Haynes W, Sluggett B. The role of organizational supports in mitigating mental ill health in firefighters: A cohort study in Alberta, Canada. *American Journal of Industrial Medicine*. 2021/07// 2021;64(7):593-601. doi:10.1002/ajim.23249
25. International Association of Fire F. Peer Support Training. *IAFF*.
26. Jahnke S, Gist R, Poston WSC, Haddock CK. Behavioral Health Interventions in the Fire Service: Stories from the Firehouse. *Journal of Workplace Behavioral Health*. 2014/04/03/ 2014;29(2):113-126. doi:10.1080/15555240.2014.898568
27. Jeannette JM, Scoboria A. Firefighter preferences regarding post-incident intervention. *Work & Stress*. 2008 2008;22(4):314-326. doi:10.1080/02678370802564231
28. Jones S, Agud K, McSweeney J. Barriers and Facilitators to Seeking Mental Health Care Among First Responders: "Removing the Darkness". *J Am Psychiatr Nurses Assoc*. Jan/Feb 2020;26(1):43-54. doi:10.1177/1078390319871997

29. National Fallen Firefighters F. Stress First Aid for Fire and EMS Personnel. *FireHeroLearningNetwork.com*.
30. International Association of Fire F. Wellness Fitness Initiative: Departments.
31. Fisher P, Etches B. A Comprehensive Approach to Workplace Stress & Trauma in Fire-Fighting: A Review Document Prepared for The International Association of Firefighters 17th Redmond Symposium. In: *17th Redmond Symposium*. 2002:5-9.
32. International Association of Fire F. *Wellness Fitness Initiative*. 4th edition ed. International Association of Fire Fighters; 2018.
33. International Association of Fire F. IAFF Program & Services: Behavioral Health and Wellness in the Fire Service.
34. Karter M. *Fire loss in the United States during 2011*. 2012. 2012/09//. Accessed 2013/05/28/15:23:23. <http://www.nfpa.org/assets/files/pdf/os.fireloss.pdf>
35. Haddock CK, Poston WSC, Jitnarin N, Jahnke SA. Excessive daytime sleepiness in firefighters in the central United States. *J Occup Environ Med*. 2013/04// 2013;55(4):416-423. doi:10.1097/JOM.0b013e31827cbb0b
36. Barger LK, Rajaratnam SMW, Wang W, et al. Common sleep disorders increase risk of motor vehicle crashes and adverse health outcomes in firefighters. *Journal of clinical sleep medicine: JCSM: official publication of the American Academy of Sleep Medicine*. 2015/03/15/ 2015;11(3):233-240. doi:10.5664/jcsm.4534
37. Into the Fire.
38. Kim JE, Dager SR, Jeong HS, et al. Firefighters, posttraumatic stress disorder, and barriers to treatment: Results from a nationwide total population survey. *PLoS One*. 2018;13(1):e0190630. doi:10.1371/journal.pone.0190630
39. Levy-Gigi E, Richter-Levin G, Kéri S. The hidden price of repeated traumatic exposure: different cognitive deficits in different first-responders. *Frontiers in Behavioral Neuroscience*. 2014/08/20/ 2014;8doi:10.3389/fnbeh.2014.00281
40. Haddock CK, Jahnke SA, Poston WSC, Jitnarin N, Kaipust CM, Tuley B, Hyder ML. Alcohol use among firefighters in the Central United States. *Occupational medicine (Oxford, England)*. 2012/12// 2012;62(8):661-664. doi:10.1093/occmed/kqs162
41. Poston WSC, Jitnarin N, Haddock CK, Jahnke SA, Tuley BC. The impact of surveillance on weight change and predictors of change in a population-based firefighter cohort. *J Occup Environ Med*. 2012/08// 2012;54(8):961-968. doi:10.1097/JOM.0b013e31825296e0
42. Ford DE, Erlinger TP. Depression and C-reactive protein in US adults: data from the Third National Health and Nutrition Examination Survey. *Arch Intern Med*. May 10 2004;164(9):1010-4. doi:10.1001/archinte.164.9.1010
43. Poston WS, Haddock CK, Jahnke SA, Jitnarin N, Day RS. An examination of the benefits of health promotion programs for the national fire service. *BMC Public Health*. Sep 5 2013;13:805. doi:10.1186/1471-2458-13-805
44. Tak S, Driscoll R, Bernard B, West C. Depressive Symptoms among Firefighters and Related Factors after the Response to Hurricane Katrina. *Journal of Urban Health*. 2007/03// 2007;84(2):153-161. doi:10.1007/s11524-006-9155-1
45. North CS, Tivis L, McMillen JC, et al. Coping, functioning, and adjustment of rescue workers after the Oklahoma City bombing. *J Trauma Stress*. 2002/06// 2002;15(3):171-175. doi:10.1023/A:1015286909111
46. North CS, Tivis L, McMillen JC, et al. Psychiatric disorders in rescue workers after the Oklahoma City bombing. *The American journal of psychiatry*. 2002/05// 2002;159(5):857-859.
47. Kessler Rc CW. PRevalence, severity, and comorbidity of 12-month dsm-iv disorders in the national comorbidity survey replication. *Archives of General Psychiatry*. 2005/06/01/ 2005;62(6):617-627. doi:10.1001/archpsyc.62.6.617
48. Center for Disease C, Prevention. Behavioral Risk Factor Surveillance System (BRFSS). CDC HRQOL-14 "healthy days measure". 2011 2011;

49. Heyman M. *The Ruderman White Paper on Mental Health and Suicide of First Responders*. Ruderman Family Foundation; 2018:41.
50. Stanley IH, Hom MA, Hagan CR, Joiner TE. Career prevalence and correlates of suicidal thoughts and behaviors among firefighters. *Journal of Affective Disorders*. 2015/11// 2015;187:163-171. doi:10.1016/j.jad.2015.08.007
51. Wagner E, Bott M, Villarreal M, Horn M, Ushery D, Stulberger E, Manney D. Firefighters' Mental Health Needs More Attention: Survey. *NBC Bay Area*.
52. Regehr C, LeBlanc VR. PTSD, Acute Stress, Performance and Decision-Making in Emergency Service Workers. *J Am Acad Psychiatry Law*. Jun 2017;45(2):184-192.
53. Katsavouni F, Bebetos E, Malliou P, Beneka A. The relationship between burnout, PTSD symptoms and injuries in firefighters. *Occupational Medicine (Oxford, England)*. 2016/01// 2016;66(1):32-37. doi:10.1093/occmed/kqv144
54. Rospenda KM, Richman JA, Shannon CA. Patterns of workplace harassment, gender, and use of services: an update. *Journal of Occupational Health Psychology*. 2006/10// 2006;11(4):379-393. doi:10.1037/1076-8998.11.4.379
55. Rospenda KM, Richman JA, Shannon CA. Prevalence and mental health correlates of harassment and discrimination in the workplace: results from a national study. *J Interpers Violence*. May 2009;24(5):819-43. doi:10.1177/0886260508317182
56. Jahnke SA, Haddock C, Jitnarin N, Kaipust CM, Hollerbach B, Poston WSC. The Prevalence and Health Impacts of Frequent Work Discrimination and Harassment among Women Firefighters in the US Fire Service. *BioMed Research International*. 2019/03/20/ 2019;20
57. Hom MA, Stanley IH, Spencer-Thomas S, Joiner TE. Women Firefighters and Workplace Harassment: Associated Suicidality and Mental Health Sequelae. *The Journal of Nervous and Mental Disease*. 2017/12// 2017;205(12):910-917. doi:10.1097/NMD.0000000000000759
58. Foundation NFF. Everyone Goes Home. National Fallen Firefighters Foundation.
59. Gist R. *Strategic implementation plan: Initiative 13*. 2007. 2007. Accessed 2014/03/19/16:52:42. <http://www.everyonegoeshome.com/success/initiatives.html>
60. Administration USF. Increasing the focus on fire and emergency medical services behavioral health. December 2022. <https://www.usfa.fema.gov/blog/ci-121522.html>
61. Raney R. Fire departments step up their mental health game. December 4, 2019, 2019. <https://www.apa.org/members/content/firefighters-mental-health>