

Taking the Lead

The state of firefighter health in Minnesota



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Cover photo by Mike Yungers

Introduction

Since our inception in 2016, we've been shouting from the rooftops about the health crisis in our fire service, and the need for more resources and education for our state's firefighters. In 2021, legislators listened, and years of hard work came to fruition with the passage of the Hometown Heroes Assistance Program (HHAP).

The HHAP is the most comprehensive firefighter well-being legislation in the nation, and I'm extremely proud to say all Minnesota firefighters now have access to the education, prevention and care needed to handle a cardiac, emotional trauma or cancer diagnosis. That's in no small part due to the hundreds of volunteer hours logged by fellow firefighters, legislators and supporters over the years.

As you'll see in this update, 2021 has been a banner year for our organization, but it's really just the beginning. We're looking forward to continuing to build on the momentum in 2022 and beyond. Above all, we're excited to expand and continue to drive our mission to provide firefighters with the tools they need to prioritize and protect their health.

Thank you for your continued support,



George Esbensen
MnFIRE PRESIDENT



New resources to protect our hometown heroes

It's a major milestone in the fight for firefighter health in Minnesota: In July 2021, the state legislature passed the Hometown Heroes Assistance Program, which dedicates \$4 million per year to ensure that every Minnesota firefighter will have access to the education, prevention and care needed to handle a cardiac, emotional trauma or cancer diagnosis.

Since 2018, MnFIRE has advocated for the Hometown Heroes Assistance Program, which is officially in place to protect and support Minnesota firefighter health. This hard-fought, long-in-the-works win for the state's fire service is the most comprehensive firefighter well-being legislation in the nation, combining three vital elements: a MnFIRE Assistance Program with expanded emotional trauma resources, an up-to-\$20,000 critical illness policy, and

ongoing health and wellness training. All of this is provided to Minnesota firefighters for free.

Thanks to the generosity of the Minnesota Legislature, as part of the Hometown Heroes Assistance Program, all active volunteer, paid-on-call, part-time and full-time Minnesota firefighters can access the MnFIRE Assistance Program, are automatically enrolled in the Critical Illness insurance policy and can receive training — all at no cost to firefighters or departments.

MNFIRE ASSISTANCE PROGRAM (MAP)

Confidential help is available over the phone or online, anytime for any firefighter and/or their family. The MnFIRE Assistance Program (MAP) targets emotional health and stress unique to the fire service through two evidence-based tactics: connection to mental health care and peer support. Phone lines are answered 24/7 and provide confidential support, guidance

and mental health resources. Any member of a firefighter's household, including children living away from home, can access the interactive website or contact a trained specialist.

Effective Oct. 1, 2021, each firefighter and/or their family members can access up to five counseling visits a year per incident with additional support ensured as needed. Firefighters are also matched with a member of MnFIRE's team of trained Peer Supporters. These supporters know firsthand the difficulties firefighters face and are well equipped to walk alongside a firefighter in need as they navigate their situation.

For more details or for help, call 888-784-6634 or visit mnfireinitiative.com/HHAP.

MNFIRE CRITICAL ILLNESS PROGRAM

All Minnesota firefighters are covered by a new statewide Critical Illness insurance policy which



covers diagnoses of cancer, cardiac or other critical illnesses, and provides a lump-sum cash payment up to \$20,000 to assist with expenses. The effective date is Aug. 1, 2021, which means all qualified claims for diagnosed illnesses from that date on are eligible.

For more information or to file a claim, call 888-784-6634 or visit mnfireinitiative.com/HHAP.

FREE TRAINING

Ongoing annual MnFIRE Awareness training is available for every Minnesota fire department. Thousands of firefighters have already received this critical training to become "MnFIRE Aware" of their occupational health risks. The Hometown Heroes Assistance Program funds allow additional MnFIRE Awareness and in-depth training to keep the momentum going.

Departments can learn more or sign up for the free training at MnFIRETraining.org.

The Hometown Heroes Assistance Program also funds annual MnFIRE Awareness training for medical doctors and mental health professionals statewide. This ensures all firefighters in Minnesota have regional access to informed and trained medical professionals to help with prevention, mitigation, diagnosis and treatment of cancer, emotional trauma and cardiac issues.

Watch your email and mail, and follow MnFIRE's Facebook, LinkedIn, Twitter and YouTube for additional information as this landmark program continues to roll out.

**If you have questions, contact MnFIRE's
Director of Program Delivery DeeDee
Jankovich at djankovich@mnfireinitiative.com
or call 888-784-6634.**



- MnFIRE Assistance Program (MAP), including enhanced Peer Support
- MnFIRE Critical Illness insurance policy
- Free awareness training for all Minnesota firefighters
- Training for medical doctors and mental health professionals statewide



Addressing the health crisis our hometown heroes face

By Rep. Cheryl Youakim & Sen. Jeff Howe

Firefighters are more than our hometown heroes; they are spouses, parents, neighbors and integral members of our communities across the state. But there is an epidemic in our firefighting community with firefighters experiencing higher rates of certain health issues. Recent statistics show one in five of Minnesota's 774 fire departments reported at least one firefighter diagnosed with cancer; and one in 10 had multiple cancer cases. First responders contemplate suicide at a rate up to 10 times higher than the general population. All firefighters face these risks due to the nature of their work, but those who are designated as non-career/volunteer firefighters often do not have adequate access to health care. In Minnesota, 93% of our volunteer firefighters don't qualify for the same health resources as full-time firefighters.

To compound this issue, Minnesota ranks an alarming 48th nationwide in per-household investments in the fire service. Our firefighters deserve better.

After hearing devastating stories from firefighters and their families across the state, we took action at the Minnesota Legislature to address these shortcomings to deliver our devoted firefighters the care they need. As state legislators, we are tasked with crafting a new state budget every two years. This year, we prioritized investments for the Hometown Heroes Assistance Program, legislation to ensure all of Minnesota's 20,000 firefighters have access to the care needed to handle cardiac issues, emotional trauma or a cancer diagnosis.



We teamed up – a democrat and a republican – in partnership with MnFIRE, a statewide advocacy organization, to develop a statewide critical care policy for all firefighters which covers diagnoses of cancer or cardiac issues. Investments in MnFIRE will provide coverage for up to \$20,000 per diagnosis. This provision was inspired by testimonies from several spouses of firefighters like Jen Frantz, who lost her husband in a line-of-duty death from a heart attack. Prior to his passing, Matt Frantz served as the Fire Chief for the Rice Lake Fire Department. Ms. Frantz testified about how the experience of losing her husband showed her firsthand how much a safety net program like this is needed.

We have seen the pandemic's impact on mental health among frontline workers and now more than ever, we need to expand access to resources that can save lives and improve emotional wellbeing. The passage of this

legislation also creates a MnFIRE Assistance Program (MAP), targeting emotional trauma issues unique to the fire service. Emotional trauma resources with a specific focus on the challenges firefighters face will now be available at no charge to firefighters and their families.

Changing the current culture in the Minnesota Fire Service is integral to long-term reduction of the incidences of cancer, emotional trauma and cardiac. The new Hometown Heroes Assistance Program also supports this goal with ongoing funding for MnFIRE programming, including awareness training for every Minnesota firefighter, medical doctors and mental health professionals statewide. This will help ensure all firefighters in Minnesota have regional access to informed and trained medical and mental health professionals to help with prevention, mitigation, diagnosis and treatment of cancer, cardiac and emotional trauma.

We value the work and contributions our volunteer and career firefighters dedicate to our communities, and investing in their health is a moral imperative we were glad to get across the finish line this session. It was truly their voices that made this new program a reality. Despite hyper-partisan narratives dominating the national stage, our divided state legislature – the only one in the entire country – rolled up our sleeves and delivered critical investments that will make a positive difference in the lives of our hometown heroes.

This op/ed originally ran in Adams Publishing Group newspapers.



“ Words cannot possibly express my gratitude for all the departments, firefighters and members of the community who showed up and dedicated their time to support the Miles for MnFIRE walk and MnFIRE’s mission. I am indebted to those who ensured my safety along the route. I am so thankful to the MnFIRE team for their support and commitment throughout this journey, but even more so related to all they are doing for my fire department brothers and sisters. They have a mighty mission and are leading purpose-driven lives indeed.”

— DOUG FOOTE



200 miles walked, \$25,000 raised

New Miles for MnFIRE fundraiser launches to raise awareness, funds for firefighter health

In 2021, MnFIRE launched a new fundraiser to raise awareness and much-needed funds for firefighter health with the help of Chanhassen firefighter, Doug Foote. Miles for MnFIRE kicked off Sept. 12 on the westernmost edge of the state near Marietta, where Doug, dressed in firefighter gear, began his 200-mile journey through numerous Minnesota communities. He walked through Lac Qui Parle, Chippewa, Kandiyohi, Meeker, McLeod, Carver, Hennepin and Ramsey counties with his trek ending the following weekend at the Minnesota Fallen Firefighter Memorial on the grounds of the State Capitol in St. Paul.

Along the way, fellow firefighters, their families and community members joined Foote on his journey to show their support for the cause. From Marietta to Montevideo to Saint Paul, and all the communities in between, Foote's 200-mile crossing served to unite, educate and rally support around the top three health issues facing firefighters in our state: cardiac, emotional trauma and cancer.

“This walk has been an incredible and inspirational journey on so many levels. What is abundantly clear is that we have firefighters who are hurting out there from the myriad of traumatic experiences they have encountered. Their dedication is nothing short of heroic, but it drives home the point of how important the MnFIRE mission is, especially related to mental health.”

In addition to sharing MnFIRE's mission with folks along the journey, Miles for MnFIRE also received widespread media attention, reaching an audience of over 5 million people through print, radio and television media outlets. MnFIRE raised more than \$25,000 to support Minnesota firefighters and the people who care about them.

Thanks again to the many firefighters who donned their turnout gear and took brave steps together with Foote, along with the long list of fire departments who donated and voiced their support for the cause, and the compassionate corporations who pledged their support for our hometown heroes. All of us at MnFIRE are grateful for Foote's tireless efforts in support of our important mission.

— DOUG FOOTE

In the spirit of Foote's walk, MnFIRE is excited to recreate the Miles for MnFIRE fundraising campaign this year with the help of fire departments across the state. If your department would like to be part of Miles for MnFIRE 2022, drop us a note at info@mnfireinitiative.com.

Taking it to heart

Kewitsch's three cardiac arrest episodes put MnFIRE's work into personal perspective

While the Minnesota Firefighter Initiative has always been important to Wayne Kewitsch, he has now taken to heart the significance of the organization.

The former Richfield Fire Department Chief experienced three cardiac arrests within a seven-month span in 2020.

"That's what ended my career," he said in an interview with KSTP-TV in January 2021. "I don't want that to happen to any other firefighters."

After 25 years in Minnesota's fire service, Kewitsch became executive director of MnFIRE and has been a key member advocating for the Hometown Heroes Assistance Program, which state legislature passed in July 2021. The program dedicates \$4 million per year to ensure every Minnesota firefighter has access to education, prevention and care needed to handle a cardiac, emotional trauma or cancer diagnosis. This is great news for the state's firefighters as cardiovascular disease is the No. 1 killer of firefighters nationwide and is by far the

leading cause of line-of-duty deaths in the fire service according to the U.S. Fire Administration.


Luckily for Kewitsch, he lived through his cardiac arrests to be able to help the 20,000 fire service members in Minnesota. Two of Kewitsch's incidences happened about one month apart.

The first one, Kewitsch's wife, Ruth, watched as their son, Jack, performed CPR on Kewitsch in the family's home before seven Edina paramedics arrived and stepped in.

The second time happened while Kewitsch and Ruth were driving north on Highway 169 for a weekend with friends on Crosslake. He and Ruth explained the events of the day during a KSTP-TV interview in February 2021.

"It all happened very rapidly," Kewitsch said during the interview. "I got lightheaded. Everything went gray and went down to a pinpoint. That's the last thing I remember."

Ruth saw her husband was unconscious behind the wheel.

 **[Three cardiac arrests within a seven-month span] ended my career. I don't want that to happen to any other firefighters."**

— WAYNE KEWITSCH



“Lots of thoughts went through my head real fast but the first one is that he is in cardiac arrest,” Ruth said. “I knew that because I witnessed his first cardiac arrest on July 1 in our home. With God’s help, I think, I grabbed the wheel, I steered right, said a little prayer and landed in a cattail swamp about 40 feet in.”

Fortunately for the Kewitsches, Emily Roeder, and her husband, Matt, were driving not far behind them and saw the incident. Emily, a nurse at Mercy Hospital in Coon Rapids, insisted her husband to pull over so she could help.

“It was a gift from God,” Ruth said about Emily stopping. “She took over the scene and knew what she was doing.”

Emily started chest compressions until emergency personnel arrived. At that time, EMTs used an AED seven times to shock Kewitsch’s heart back into a normal rhythm.

“I was planning his funeral,” Ruth said about what she thought while watching the scene play out. “How do I get his body home? Seven shocks were bad. And to see him lifeless, and I was holding his hand unless they were shocking him. I wouldn’t want anyone to go through it.”

After making a recovery and having surgery to implant a heart defibrillator, Kewitsch is thankful for all the people who helped him. Now he’s ready to help other firefighters in Minnesota get through or reduce the number of cardiac, emotional trauma or cancer diagnoses.

He’s taking it to heart.

In the news

One of our organization's important objectives is to build awareness of the challenges facing Minnesota's firefighters and the resources they can access. To do that, we tell MnFIRE's story, as well as the stories of the fire service's people, processes, challenges and successes through the media.

In 2021, we secured key statewide, hyperlocal and fire service media outlet placements that reinforce MnFIRE's position as a leader in firefighter health and wellness across the state, and provide valuable information for the Minnesota fire community. This included interviews, op-eds and letters to the editor on topics such as Hometown Heroes Assistance Program advocacy, passage and benefits, Wayne Kewitsch's health story and executive director announcement, MnFIRE training, Miles for MnFIRE and more.

234 STORIES

31,166,405 TOTAL POTENTIAL AUDIENCE

IN TOP OUTLETS



MPRnews

Minnesota man starts 200-mile walk to support fellow firefighters

Harrold Kang News 10/10/2021 September 17, 2021 4:50 PM



TwinCities.com PIONEER PRESS

'A cry out for help': Minnesota firefighters see mental and physical health push

Effort to educate firefighters on mental and physical health ramps up



abc 6 NEWS

New hometown heroes assistance program benefits firefighters



5 EYEWITNESS NEWS

Former fire chief's new calling helping firefighters across Minnesota



MINNPOST

Give Minnesota's firefighters the life-saving support they deserve

The Hometown Heroes Assistance Program will ensure that all of Minnesota's 20,000 firefighters have access to the care needed to handle a cardiac, emotional trauma or cancer diagnosis.

Grand Forks Herald

Viewpoint: It's time to protect the health of our hometown heroes

According to the National Fire Protection Association, more than 68 percent of all firefighters will develop some form of cancer in their lifetimes. Likewise, firefighters experience higher rates of certain types of diagnoses and cancer-related deaths compared to the general U.S. population, according to a multi-year study from the Centers for Disease Control and Prevention.

ECHO PRESS

Osakis firefighters learn how to protect themselves from health problems

Osakis firefighters complete training to become aware of health risks in their field



Our history

Since its inception in 2016, the Minnesota Firefighter Initiative (MnFIRE) has been dedicated to providing Minnesota's firefighters with the tools they need to prioritize and protect their health. The organization focuses on the three health problems most commonly experienced by those in the fire service: cardiovascular disease, emotional trauma and cancer.

MnFIRE has taken an innovative, inclusive and tenacious approach to unify and spark discussions, along with creating action among Minnesota firefighters, their families, their communities and state policymakers regarding firefighter health. In 2021, MnFIRE applied best practices, built a coalition and launched a sustained marketing campaign that delivered a successful outcome for Minnesota's firefighters. The organization orchestrated the passage of the most comprehensive firefighter well-being legislation in the nation.

The milestone Hometown Heroes Assistance Program bill's passage into law provides \$4 million a year to bolster Minnesota firefighter health. The hard-fought, long-in-the-works win for the state's fire service was a statewide collaboration led by MnFIRE. The organization forged a path to this accomplishment by bringing together a bipartisan group of legislators, members of the fire service, marketing professionals and the general public, and taking action.



An integrated focus

In 2016, a group of passionate and connected Minnesota fire service leaders collaborated to hold a Minnesota Fire Service Summit to discuss the growing mental health crisis among the state's firefighters. The event brought together every element of the Minnesota Fire Service: from the Minnesota Professional Firefighters and the Minnesota Fire Department Association to the Minnesota State Fire Chiefs Association and the State Fire Marshal's Office, as well as many other stakeholders.

During the summit, it became clear that while addressing firefighters' mental health was critically important, two other health issues — cardiovascular issues and cancer — posed equally critical challenges. With their unique and first-hand perspectives, the summit participants understood better than most that all three issues were equally serious and intertwined.

At the summit, the Minnesota Firefighter Initiative, or MnFIRE, was born. Led by a trio of experienced fire service leaders, George Esbensen (right), John Wolff (left) and Mike Dobesh (middle), MnFIRE quickly grew into a vital statewide advocacy organization focused on the three health problems most commonly experienced by those in the fire service. The burgeoning organization's logo was designed to reflect the interdependence of those co-morbidities: cardiac issues, emotional trauma and cancer.







Developing best practices

In the months and years ahead, MnFIRE achieved multiple notable milestones, all designed to ladder up to the overarching mission of supporting firefighter wellness.

MnFIRE enlisted the Illinois Firefighter Peer Support team to train the MnFIRE team and over 40 peer supporters, and point them in the right direction. Soon, the organization launched its toll-free peer-support hotline (888-784-6634) and website. Initially the hotline focused on peer support for emotional trauma but quickly expanded to include support for answering questions related to cardiac disease and cancer. MnFIRE began providing health and wellness training to firefighters across the state, working with media and pursuing the passage of the Hometown Heroes Assistance Program in the state legislature.

As MnFIRE expanded into more areas, it began partnering with subject matter experts from each of the health specialties and became involved in

various research, including through the University of Minnesota and HealthPartners. MnFIRE was awarded a \$500,000 grant to generate awareness on resources being provided by the MnFIRE team and to offer free training to all 20,000 Minnesota firefighters.

In 2021, the nonprofit invested in a new website. This has made it easier for MnFIRE to share information, and for firefighters to more conveniently register for training. At this time, MnFIRE also took on the role of measuring, coordinating and implementing firefighter wellness for individual fire departments across the state, starting with the St. Paul Fire Department.

In 2021 alone, MnFIRE generated nearly 250 media stories with more than 30 million impressions across Minnesota. Nearly 50 stories focused on individual departments participating in health and wellness training to model positive behavior for the rest of the state's departments. More than two dozen persuasive op-eds and letters to the

editor delivered strong calls to action to encourage legislators and other stakeholders to support the Hometown Heroes Assistance Program.

Since MnFIRE launched the new website in December 2020, nearly 10,000 individual visitors have initiated 13,000 sessions and 24,000 page views. The market-by-market grassroots communications initiative also helped drive training registrations. To date, 435 Minnesota fire departments have participated in MnFIRE training sessions.

One of the major elements of MnFIRE's integrated campaign was a series of op-eds and letters to the editor, authored by members of the fire service, that ran in markets across the state. The media relations activities boosted the profile of news conferences, which included legislators, fire service leaders, and firefighters and surviving family members who delivered emotional, persuasive messages about the sweeping firefighter health crisis.

Building partnerships

On June 30, 2021, the Minnesota Legislature passed the Hometown Heroes Assistance Program, and the governor signed it into law. MnFIRE enlisted AON to conduct an extensive vetting process of the major players in the Critical Illness and Employee Assistance Program provider spaces. The vetting process led to the selection of three Minnesota-based partners: Optum to administer the MnFIRE Assistance Program (MAP), Blue Peak Consulting to coordinate peer support and Securian to administer the Critical Illness insurance elements.

The marketing efforts continue full speed ahead to communicate with all of the state's 20,000 firefighters to ensure they are aware of these groundbreaking new benefits. MnFIRE is continuing to build momentum with an integrated communications initiative including brochures, media coverage, ads, blog posts, social media content, revitalized event signage and direct-to-firefighter communications, with dozens of other tactics planned and in various stages of launch. Looking ahead, MnFIRE is developing a symposium, the Firefighter Health Forum in April 2022, targeted at fire service leaders, mental health providers, medical professionals and peer supporters.

By creating a sustainable resource for every Minnesota fire department — equipped with useful communications tools for action and advocacy — MnFIRE is motivating fire service champions and elevating Minnesota as an example for the nation.

MnFIRE has answered the call, with a proud history of leadership in firefighter wellness, expertise in building and executing a strategy to affect change, and a commitment to improving the future for firefighters in Minnesota and across the country.

The AON logo consists of the letters "AON" in a bold, red, sans-serif font.The Optum logo features the word "Optum" in a bold, orange, sans-serif font.The Blue Peak logo includes a circular icon with blue and white wavy lines on the left, followed by the words "BLUE PEAK" in a bold, blue, sans-serif font. Below this, in a smaller font, are the words "RELIEF • RESILIENCE • WHOLE PERSON CARE".The Securian Financial logo features a green icon of four stylized human figures holding hands in a circle on the left, followed by the word "securian" in a bold, black, sans-serif font, and "FINANCIAL™" in a smaller, black, sans-serif font below it.The Elevate Learning Consulting logo features a green checkmark inside a red circle on the left, followed by the word "Elevate" in a large, black, sans-serif font, "Learning" in a smaller, black, sans-serif font below it, and "CONSULTING" in a smaller, black, sans-serif font at the bottom.

Looking ahead

2021 has been a banner year for our organization, but the work is not done yet. With exciting events, partnerships and plans on the horizon, the future is bright for MnFIRE. We look forward to continuing to grow our work championing firefighter health in the years to come and appreciate your continued support.

Firefighter Health Forum

MnFIRE's inaugural Firefighter Health Forum will take place April 22 and 23, 2022. This exclusive gathering will allow cardiac, cancer, and mental health experts and fire service leaders to share the latest information, in-depth research and techniques, and to create local and national opportunities for collaboration. The forum will feature four distinct tracks for fire service leaders, medical providers, mental health providers and peer supporters.



“Firebrick for Firefighters”

Schell's, the second-oldest, family-owned brewery in the United States, is teaming up with MnFIRE to support firefighter health with the sales of its Firebrick beer. Schell's will be donating \$10 per keg sold and \$5 from case sales. Together with Schell's, we'll be promoting this exciting partnership with billboards, public relations, swag and more.

New curriculum

As MnFIRE continues to grow, our curriculum offerings are growing along with it. We're excited to be working on two new offerings for 2022. One will be a class specifically geared toward the families of firefighters, equipping them to best support their loved one, signs to look for and ways to promote a healthy lifestyle within their families. The other training currently in development focuses on educating firefighters to be the healthiest they can be in the areas of eating, sleep and exercise.

National growth

After passing the most comprehensive firefighter well-being legislation in the nation this past year, we're also beginning to talk with other states about replicating our success across the country. Every firefighter deserves access to the same level of support and education Minnesota firefighters now have, and we won't stop until they do.





Helping the helpers

MnFIRE's new medical expert Dr. Melinda Coscarelli enjoys taking the lead in supporting firefighter mental health

Dr. Melinda Coscarelli knows it is often hard for firefighters to admit they need help when it comes to emotional stress.

“When they first come into the office, they all kind of have this one particular look,” Coscarelli said. “They’re kind of like a deer in the headlights because they’re so used to helping people. They’re used to being the ones in control and taking the lead. This is all new territory for them.”

It is a territory where Coscarelli will gladly take the lead to help. She is one of many providers across the state available to help firefighters and their families in the MnFIRE Assistance Program (MAP) as part of the Hometown Heroes Assistance Program that passed in 2021. In addition to serving as a provider, Coscarelli is MnFIRE’s medical expert for emotional trauma. Coscarelli has her own practice, Professional Recovery Organization, which specializes in treatment of mental health and substance abuse disorders for the public and first responders.

“We get into a lot of the brain sciences,” Coscarelli said.

Along with a PhD in neuropsychology, Coscarelli is a Licensed Professional Clinical Counselor and Licensed Alcohol and Drug Counselor.

“When I was younger, I always knew I wanted to be a doctor in some way,” Coscarelli said. “I always knew I wanted to help people. My father had a really bad addiction issue so dealing with all his struggles throughout my childhood is what turned me to want to help people who struggle with addiction.”

“Firefighters are problem solvers. They’re really good at finding solutions to problems. They do it all day long. That’s what I’m going to help them do when they come in.”

— MELINDA COSCARELLI,
PhD LADC LPCC

Although her career took a different direction for a while, Coscarelli came back to the path she always wanted to take, and became a licensed counselor in 2014 and 2016.

“I love what I do,” Coscarelli said. “I’m very grateful that I ended up in a career field that I knew I was meant to do.”

Soon after beginning her practice, Coscarelli worked with a police officer.

“When working with law enforcement, they typically have a hard time trusting people, especially when it comes to them suffering addictions,” she said. “It’s hard for them to talk about that.”

However, that first police officer had such a good experience he told others in the emergency services field about his sessions with Coscarelli. From there, Coscarelli came to know and appreciate working with law enforcement officers, firefighters and health care professionals.

“Firefighters are such great people,” Coscarelli said. “But sometimes they have a hard time opening up in the beginning.”

Coscarelli said many people have a misconception that therapy sessions only include talking about a person’s feelings.

“Although there are times we may talk about feelings, we actually spend the majority of our time talking about whatever it is the patient wants to talk about,” she said. “It’s all about them, their goals or whatever is at the forefront. It is their time. I’m just there to listen, and offer tools and solutions to help them get better. Sometimes we actually have fun and end up laughing.”

During the past two years, Coscarelli knows these career fields have had many stressors.

“They’ve got so much going on,” Coscarelli said. “They’re all dealing with COVID stuff, with crime rates skyrocketing, shortages in all their respective fields right now and all the uncertainty.”

While she said the work is challenging, Coscarelli said it is

equally rewarding.

“I don’t let anyone leave the office feeling bad or worse than they did when they walked in,” she said. “It’s a rule of mine. Hopefully, they feel better. And I always feel really good about it that they at least have one more tool, one more skill they’ve taken away from our session.”

While Coscarelli will take the lead in sessions, she likes to equip her clients to be able to handle stressful situations themselves.

“Firefighters are problem solvers,” Coscarelli said. “They’re really good at finding solutions to problems. They do it all day long. That’s what I’m going to help them do when they come in. In actuality, our jobs are similar.”

Coscarelli tries to educate patients about mental health skills and tools so they can learn to take care of themselves.

“That’s key,” she said. “I don’t want people to be in therapy months or years. I don’t believe in that.”

For firefighters who are nervous to make the first call, Coscarelli said it is

normal to feel this way.

“With any new experience we’re going to be a little scared,” she said. “That’s completely natural. We’re here to help, we’ve got the skills, the tools that can help you, and our goal is to get you feeling better in a very timely manner. We’re invested in getting you the help you need. You’ll be happy you did in the end.”

Coscarelli said it is OK to ask for help. “We all get to a point sometimes where we get overwhelmed, or we just need someone to help us,” she said. “We don’t always have the answers to every single issue so reach out to somebody that can maybe figure some things out.”

With the MAP a part of the HHAP, it makes it easier for firefighters to find the help they need.

“I hope people take advantage of it because it’s there for them for a reason,” Coscarelli said. “In the future, I hope we can use it to be more proactive and preventative-type program with more education so people can take better care of themselves so we can prevent a lot of these illnesses before they happen.”



- Confidential help available 24/7
- Mental health resources for firefighters and their families
- Up to five free counseling visits a year per incident
- Firefighters are matched with a trained Peer Supporter

For more details or for help, call **888-784-6634** or visit liveandworkwell.com with access code: **MnFIRE**.

Firefighter cardiovascular diseases

By Dr. Paul J. Anderson, II, MD



Every year in the United States, approximately half of all on-duty deaths among firefighters are caused by cardiovascular events, primarily heart attack and stroke. Numerous studies have shown that the combination of the intense physical demands of front-line firefighting and

a lack of physical readiness in the firefighter cause these deaths. Firefighter education, departmental adherence to NFPA 1582 and 1583, and personal lifestyle changes among firefighters are key solutions to this problem.

In the general population, cardiovascular diseases are the leading cause of death in the United States. According to the Centers for Disease Control and Prevention, heart disease causes 1 in 4 deaths each year in

United States, approximately 600,000 deaths per year. More than half of these deaths occur among men and the majority of deaths from heart disease are related to coronary artery disease (CAD). There are approximately 370,000 coronary artery disease deaths per year in the United States. Overall, there are approximately 735,000 heart attacks each year in the United States.

Coronary artery disease (CAD) develops from plaque buildup in the arteries of the heart which leads to narrowing of the blood flow passage and decreased blood flow to the heart muscle. Plaque buildup can lead to total occlusion of the coronary arteries or the plaques in the coronary arteries may rupture causing a clot with complete cessation of blood flow to the heart muscle called ischemia. Ischemia leads to muscle death, decreased heart function, and in some cases rupture of the muscular wall of the heart.

The main risk factors for coronary artery disease include smoking, high blood pressure, and high cholesterol. About half (47%) of all Americans have at least one of these risk factors. In general, coronary artery disease is a lifestyle disease, meaning that behavioral choices in the individual are the primary causes of the disease state.

The physical demands of firefighting create acute health risks for firefighters that have an underlying cardiovascular disease. On average, typical firefighting equipment weighs 60 pounds which includes turnout gear, tools, and self-contained breathing apparatus. While wearing this equipment, firefighters engage in physical maneuvers including but not limited to stair climbing, victim rescue, demolition, running, crawling, and the hauling of a charged fire hose. In addition, these activities are undertaken in extreme heat and in the context of heightened sympathetic activation (i.e. stress and anxiety)

which only intensifies the extreme strain in the cardiovascular system encountered during structural firefighting.

According to the United States Fire Administration, in 2018 there were 25 sudden cardiac deaths with onset while the victim was on-duty. Cardiac-related events accounted for 44% of the on-duty fatalities over the past 10 years (2008 through 2018). NFPA research from 1977 through 1986, shows an average of 60 firefighters a year suffered sudden cardiac deaths while on duty (44.7% of the on-duty deaths during that period). These are cases in which the onset of symptoms occurred while the victim was on-duty and death occurred immediately or shortly thereafter. The average number of deaths fell to 44 a year in the 1990s and to 31 in the past decade. In spite of this reduction, sudden cardiac death continues to be the number one cause of on-duty firefighter fatalities in the U.S., and in almost every year has accounted for the single largest share of deaths in the year. In addition, countless deaths occur annually to current and former firefighters whose health was compromised during their years in the fire service.

Selected narratives from 2018 related to firefighter cardiac death were included in the NFPA report and are included here to illustrate the gravity of the problem.

SUDDEN CARDIAC DEATH FOLLOWING TRAINING

At approximately 7:45 a.m., a 30-year-old career firefighter arrived at the firehouse for his 24-hour shift. Soon after arriving, he began washing and cleaning apparatus and checking equipment. After morning equipment checks, the firefighter helped move over 200 pounds (90 kg) of trauma kits into a vehicle in the back of the station. A half hour later, he and his truck mates repaired a pull out tray located in an upper storage compartment on the heavy rescue. During the repairs, he was on a ladder and handed down numerous heavy tools and then repaired the pull out tray and placed all items back into the compartment.

For the next three hours, the firefighter performed more vehicle maintenance and then participated in training with five other firefighters. The training evolution consisted of donning structural firefighting protective ensemble including self-contained breathing apparatus (SCBA), and performing search training while on air.

The members participating then performed low profile and maneuvered through tight spaces under a fire truck while on air. At the end of the drill, the victim had used more than half of his air cylinder and began complaining of chest discomfort. The training ended around 2 p.m., when the firefighters ate lunch and had some

down time in the firehouse. At approximately 7 p.m., the victim took 200mg of Ibuprofen and seemed unsettled for the next few hours. Fellow firefighters observed the victim kneeling on the concrete in obvious discomfort. He stated that he thought he pulled a pectoral muscle. At 10:30 p.m., the victim informed his company officer he was going home before the “pain struck again.” The victim left the firehouse and went home, which was located a mile (1.6 km) down the road. An hour later, the victim’s wife dialed 911 reporting her husband was unconscious. Fellow firefighters arrived on scene and began advanced life support measures and he was transported to the hospital where he died from an acute myocardial infarction. The fire department does not provide annual physicals for its members but does have a voluntary wellness and fitness initiative.

CARDIAC EVENT IN A 64-YEAR-OLD VOLUNTEER RESPONDING TO FIRE

A local volunteer fire department received calls reporting a dwelling on fire. Firefighters were dispatched at 1:46 p.m. A firefighter with nine years of experience responded in his personal vehicle to the firehouse, got out of his vehicle, donned his turnout coat, and bunker pants, climbed into the front driver’s seat of the engine company and responded at 1:48 p.m. with another firefighter. The engine arrived in two minutes and the crews encountered a confined cooking fire on the stove. The driver

suffered a medical emergency while sitting in the driver's seat, never leaving the cab of the truck. Fellow firefighters unfastened his seatbelt and removed him from the cab. They brought him to the ground where they initiated basic life support. An advanced life support ambulance was dispatched on the initial call and arrived on scene to begin life saving measures. The 64-year-old victim was initially in ventricular fibrillation (NFA Research pg. 20) and CPR was initiated and sustained using a mechanical CPR device. An intravenous line was established. The victim intubated in accordance with local protocols, and was defibrillated five times. He was transported and treated at the emergency room. Resuscitation efforts ceased just over an hour later.

CARDIAC EVENT AT STATION WHILE PREPARING FOR DRILL

A 31-year-old captain who was the son of the fire chief was at the firehouse alone preparing for an upcoming company drill. He was wearing his protective ensemble and using SCBA. The fire chief, driving by the firehouse, saw his son's truck and stopped to see what he was doing. He opened the front door of the firehouse and heard a PASS device sounding. He found his son unresponsive on the apparatus floor, with his face piece off, but wearing his SCBA. The chief immediately requested an advanced life support ambulance. The victim had been with the department for 15 years and was an active member. He had a preexisting condition of deep

vein thrombosis and pulmonary embolisms.

According to his physician, he had been cleared for firefighting duties and activities.

CARDIAC EVENT AT STATION FOLLOWING STRENUOUS ACTIVITY DURING RESCUE

A 32-year-old assistant chief was at the firehouse cleaning equipment that had been used in a trench rescue earlier in the day. He was found unresponsive in the firehouse bathroom by his co-workers who immediately performed cardio pulmonary resuscitation. The chief had performed strenuous activity while operating at a technical rescue two and a half hours prior to his death. An autopsy was performed on the victim and post mortem results indicated he had a prior cardiac history of hypertension and coronary artery disease (CAD), including left ventricular hypertrophy (LVH), a risk factor for sudden cardiac death. The autopsy results also indicated that LVH can be caused by hypertension and CAD. The cause of death identified through the medical examiner was most likely hypertensive and atherosclerotic cardiovascular disease. The department indicated it does not have an established wellness and fitness initiative, but does provide annual physicals to its members.

These cases illustrate a number of important realities regarding cardiovascular disease among firefighters. First, all of these victims had some form of underlying cardiovascular

disease but were still cleared for firefighting duties. Second, there appears to be a lack of awareness among firefighters in these areas about the symptoms of heart attack and heart disease. Third, the existence of rigorous annual screenings and/or well-being programs is variable among fire departments.

Reducing the risk of cardiovascular disease death among firefighters in the United States depends upon reducing the upstream cumulative risks of heart attack in this working population. Some interventions rely on departmental leadership and funding and some interventions are the professional responsibility of the firefighter. Departmental leadership can prioritize the promotion of safe firefighting practices according to NFPA 1582 and 1583, the use of a self-contained breathing apparatus during overhaul, and the implementation of recovery and recycle rotations that provide adequate rest during strenuous activity. Annual medical examinations should be provided whenever possible and should focus on robust coronary artery disease screening including smoking status, blood pressure management, and cholesterol measurement. The implementation of annual cardiorespiratory fitness testing that meets recommendations in NFPA 1582 (VO2 max = 42 mL/kg/m; 12 METS) alone would provide significant reductions in the prevalence of cardiovascular risk factors in departments where it is implemented. Additional study could

be valuable to determine what a better standard should be as VO2 max decreases with age and is lower (at the same age) for women than men. Departmental leadership can also provide education regarding cardiovascular diseases and how to reduce the risk of death on the job from a heart attack. Well-being programs serve to provide a stimulus for culture change in the fire service.

Firefighters can take several actions to reduce their pre-existing risk profile before they engage in firefighting activities. First of all, firefighters should understand their pre-existing risk for coronary artery disease and other heart diseases. Every firefighter should be educated that if they have early onset of coronary artery disease (a coronary artery disease event in a first-degree male relative younger than 55 years of age or in a first-degree relative who is female less than 65 years of age places them at increased risk) in a first-degree relative they should have more frequent cholesterol checks, and they should lower their threshold to start medication to control cholesterol. Education for firefighters should include demonstrating how they can use the American College of Cardiology/American Heart Association cardiovascular risk calculator online.

Firefighters should be educated about blood pressure management through eating a low-sodium diet, regular physical activity, and the use of medication if needed. They should also

be screened and educated regarding elevated serum cholesterol and how to control it through lifestyle modification or medications, if needed. Diabetic firefighters should be carefully educated regarding adequate control of blood sugar and how their condition predisposes them to cardiovascular disease and increased risk of death on the job.

Lifestyle modification should be a core component of all education for firefighters to reduce cardiovascular disease risk. First, firefighters must not smoke and those who do should be encouraged to quit. Individuals who wish to quit smoking should be provided with readily available support structures for the next cessation attempt. Typically this involves the use of medication, counseling, and group therapy as needed. Second, every firefighter should receive education about moderate alcohol consumption and eating a diet that is predominantly whole food, plant-based, and that avoids processed foods. Many chronic conditions that are risk factors for cardiovascular disease (high blood pressure, high cholesterol, diabetes) can be reversed with the implementation of strict dietary changes. Firefighters should be educated about the tracking applications on their phones or smart devices that will allow them to document their eating habits and improve portion control and food selections. Third, every firefighter should receive education about minimal requirements for physical activity, including at least 150

minutes of moderate activity every week. For those who already maintain a physical activity regimen, high intensity interval training that mimics firefighting duties should be included on a weekly basis to improve readiness for the extreme physical challenge of firefighting duties. Strength training is also a critical element of physical readiness for firefighters because muscular fitness and capacity reduces cardiovascular demand. Firefighters should be encouraged to perform large muscle group and core strength training using body weight or other weights at least twice a week.

In general, most studies reveal that educational efforts towards behavior change must be combined with some level of personal coaching and cultural reinforcement if they are to be effective. The fact that firefighters form intense team relationships through living, eating, and working together provides a tremendous support for behavior change. Each department, and perhaps each station can create their own unique culture regarding well-being that will serve as a support or a barrier to reducing cardiovascular disease risk. The transformation of firefighter cultures and the presence of lifestyle coaching programs are the hallmarks of the department with low risk levels for cardiovascular disease events.

Emotional trauma update:

How does trauma from our childhoods influence our lives today?

By Melinda Coscarelli, PhD LADC LPCC

Medical Director, MnFIRE Assistance Program Provider Network



Every firefighter knew what they signed up for when getting into the field. They knew they would be exposed to some of the most horrific situations, dangerous circumstances and heartbreaking outcomes. They knew they would be risking their lives in order to

save others. These emotional extremes attract a certain personality type to this line of work. So, are people born firefighters or do they develop these traits over time?

According to the Myers-Briggs test that assesses a person's personality, firefighters fall into the ESTP personality type (as outlined by the Myers-Briggs Type Indicator® Assessment, or MBTI® Test). This is the Extraverted Sensing with Introverted

Thinking type. Individuals that exhibit the ESTP personality type are incredibly lively individuals, full of life and a carpe diem philosophy. They are spontaneous, versatile, imaginative and skillful. When it comes to working efficiently and coming up with solutions, the ESTP type uses creativity to facilitate results. They can create new, more efficient measures and methods when others seem outdated or ineffective, or find new ways to use old customs. They can creatively problem-solve projects that others may not be able to complete, feeling accomplished when they see said projects to completion.

ESTP types work well in group settings because of their ability to think outside the box for solutions and answers, meaning they are often sought after for group activities. This is true even outside of work such as with sports teams and friendship groups. ESTP types learn through doing and watching, meaning every day they perceive as a

new learning experience. They are ready for curve balls both in work and in life because of their talent for quick thinking on their feet, making them also very accommodating to change.

These are all attractive attributes most people would like to personify. So how does a person acquire “firefighting personality traits,” you ask? Good question.

Most of our traits are formed during our childhood. In young children, neural pathways are forming at their highest rates and thinking patterns are most elastic. One of the most critical stages of learning occurs from age 2 through 7. Children's brains absorb information unlike any other time frame again in their lives. This is their greatest chance for learning to play an instrument or becoming proficient in a second language. It is also their most instrumental time for learning new skills and behaviors.

This is why having supportive caregivers, meaningful experiences and a healthy environment are crucial for children. Whereas childhood trauma can physically damage the brain by triggering toxic stress. Frequent and prolonged toxic stress rewires several parts of the brain, altering activity and influencing emotions, leading to biophysical changes on the body. This is where mental and emotional disorders begin such as anxiety, depression and complex PTSD. It is also the pre-cursor to so many physical ailments such as heart disease, diabetes, immune deficiencies, major organ dysfunctions and other major health concerns. Severe abuse is associated with lowered IQ levels, brain abnormalities and irreversible health problems.

But how do we define a traumatic experience? The true definition of a traumatic experience is an experience that produces psychological or biophysical injury or pain. Now, the caveat here is that there is no timeframe mentioned for the beginning of symptoms. This is something people really need to understand. Just because you experienced something traumatic two years ago and didn't have any immediate symptoms following the incident, doesn't mean at some point you won't. Like the definition states, it's an injury. We don't always feel our injuries following an incident. When we experience something traumatic, there are several stress hormones released including adrenaline and cortisol. These chemicals put you in fight or flight mode.

Depending on many factors, your sympathetic nervous system may stay activated for a prolonged period of time. During this time, your adrenal glands will continue to release hormones until your parasympathetic nervous system kicks in and calms you down.

People who have experienced a Big Traumatic Event (i.e., surviving the Twin Towers collapsing, being in active combat, being tortured, etc.) and haven't been properly treated, or people who continuously get re-traumatized such as abused children or first responders, can live in the fight or flight state and don't even realize it.

For adults, some of the symptoms are poor sleep, moodiness, a short fuse or being irritated easily, feeling uptight or restless, excessive worrying, living in your head, emotionally drained, ruminating, drinking to relax or engaging in other unhealthy behaviors.

For young children, they don't know how to express their emotional symptoms and may act out with negative behaviors or tend to be very clingy. They may use their physical health as an outlet. Frequent stomach aches or headaches may be a sign of trauma. Wetting the bed may be a sign of sexual abuse.

For adolescents, they may completely isolate and shut everyone out. They may also do the complete opposite and start acting out with rebellious behaviors. Promiscuity or using

substances are common. Know your kids' friends and how they are doing in school. This will give you good insight into their world.

Most of us could probably say we've endured some form of trauma during our lives, if not multiple incidents. Some people might even consider their experience during the pandemic to be traumatic. But it is the developmental stages of childhood that need to be evaluated. Children's brains are like sponges during this time. Traumatic incidences can certainly cause significant lifelong damage to a child if not treated properly.

However, during this period it is also prime time to plant seeds of resilience, which can counteract the effects of trauma. Our experiences during the earlier stages of our childhood influence the outcome of our overall health and well-being for the rest of our lives. But it doesn't mean you are destined to a life of disease and mental health problems if you were physically abused or if your parents were alcoholics. Just like anything in life, our circumstances don't define us. It is the way we respond to them and what we take away from them that matters.

From age 2 through 7, we have to rely mostly on others to learn healthy positive responses and the coping mechanisms necessary to overcome similar and future adverse experiences.

Protective factors, such as caring and competent

“You were not given a good or bad life. You were given life. It is up to you to make it good or bad!”

**— MELINDA COSCARELLI,
PhD LADC LPCC**

caregivers, community support, a healthy environment, positive reinforcement and encouragement, social connections and faith can help a child feel safe more quickly after experiencing the toxic stress of an adverse childhood experience. Protective factors can neutralize the physiological changes that naturally occur during and after trauma. This protects the developing brain, the immune system, and the body as a whole from negative effects. If the child's protective factors are firmly in place, development can be shielded from the damage, even in the face of severe adversity.

If these protective factors are inadequate, either before or after the traumatic experience, then the risk for developmental problems is much greater. This is especially true if the environmental hazards are intense and prolonged.

Knowing your ACE score is probably one of the

most important scores you've never heard of. So, what is an ACE score, you ask? ACE stands for Adverse Childhood Experiences, and it is a quick 10-question assessment (pertaining to incidents at age 18 or younger) that can give you a lot of insight into your mental, emotional and physical health.

Here is the Adverse Childhood Experiences (ACEs) Assessment:

- ☐ Did you feel you didn't have enough to eat, had to wear dirty clothes, or had no one to protect or take care of you?
- ☐ Did you lose a parent through divorce, abandonment, death or other reason?
- ☐ Did you live with anyone who was depressed, mentally ill or attempted suicide?
- ☐ Did you live with anyone who had a problem with drinking or using drugs, including prescription drugs?
- ☐ Did your parents or adults in your home ever hit, punch, beat or threaten to harm each other?
- ☐ Did you live with anyone who went to jail or prison?
- ☐ Did a parent or adult in your home ever swear at you, insult you or put you down?

- ☐ Did a parent or adult in your home ever hit, beat, kick or physically hurt you in any way?
- ☐ Did you feel that no one in your family loved you or thought you were special?
- ☐ Did you experience unwanted sexual contact (such as fondling or oral/anal/vaginal intercourse/penetration)?

Your ACE score is the total number of checked responses.

How many ACEs do you have? Interestingly, there hasn't been much research done on ACE score and how they coincide with various professions. From my personal experience, most firefighters tend to have higher ACE scores than the average population. This is true for law enforcement, nurses and EMS professionals as well. My theory is that most of these professions attract people who thrive on fast-paced environments, have creative problem-solving abilities, are caring and nurturing, like to be in control, tend to worry even when there isn't much to worry about, are usually living in their heads, work well as a team and don't know what to do with themselves when it's quiet. Does this fit you? These are all behaviors that are commonly associated with childhood hardship or trauma.

By all means, this does not imply that all firefighters or first responders had childhood trauma, or possess all of these behaviors. There

are many other reasons why people choose their respective career paths. Maybe they are carrying on a family tradition, maybe a family member or positive role model inspired them, maybe they wanted to make a difference in the world, maybe they are a thrill seeker or maybe they took a career assessment test.

To learn more about your ACE score, visit: [CDC.gov](https://www.cdc.gov) (Center for Diseases Control and Prevention) or [ncsl.org](https://www.ncsl.org) (National Conference of State Legislators).

Regardless of what your ACE score is, the more important question is your ability to bounce back from life's curve balls. Resilience encompasses many traits like determination, grit, patience, strength, optimism, faith and hope.

With support, care and appropriate intervention, resilience can be the antidote to ACEs. Through positive relationships, children learn to develop crucial coping skills. It is these skills that calm our parasympathetic nervous system and break us free from the fight or flight state. When kids know they are not alone, it is easier for them to adopt healthy ways to process stress.

When we are taught coping mechanisms at a young age, we begin to nurture our seeds of resilience. As we move into maturity, these seeds begin to blossom. The fruits of labor carry over into adulthood and give us the tools to overcome life's struggles and deal with adversity in a healthy manner. It gives us confidence to keep going, even when we don't think we can.

It's what gives a firefighter the courage to continue to look for a person's loved one even when the stakes are too high.

It's what gives a firefighter the desire to run back into a burning building to save a little boy's dog.

It's what gives a medic the mental strength to offer emotional support to a

spouse when her husband is dying in front of her eyes.

It's what gives a crew the bravery to respond to a scene of casualties due to a mass shooting.

It's what gives a captain the strength to stand up for his or her team.

It's what gives every firefighter the motivation to come to work every day. They know somehow, some way, they will make it through. Because of their unique personality traits and their resilience, they do!

One last important note is if you have a high ACE score, it is something to be aware of. It may be an indicator that you are at higher risk for developing both mental and physical health conditions. Please make sure you are taking good care of yourself. If you are noticing any signs of moodiness, anger, lack of sleep, sleeping too much, excessive drinking, nightmares, isolation or people being concerned about you, please feel free to reach out.

Do you have issues with sleep or mood? Are you having relationship problems, alcohol concerns or anger issues? There are people who can help and it's completely confidential! Every single firefighter and their immediate family now get five free sessions to work on their mental wellness.

For more details or for help, call 888-784-6634 or visit mnfireinitiative.com/HHAP.

Thank you for all you do!



Peer impact

The crucial role of firefighters helping firefighters through peer support

By Margaret Gavian, PhD



Stress, and particularly traumatic stress, is an occupational hazard of being a firefighter. The National Institute for Occupational Safety and Health (NIOSH) defines job stress as the harmful physical and emotional responses that occur when job demands do not match the resources or needs of employees (NIOSH, 2011). All firefighters have a particularly high exposure rate to traumatic stress inducing incidents. Yet, it is also often accumulative stress that piles up on, and within, firefighters and their families.

Recent data reported by the IAFF estimates that approximately half of all firefighters think about wanting to die; 20% will make a plan, 16% will attempt suicide and 16% will injure themselves in another way in an attempt to cope. More firefighters die by suicide than in the line of duty. These numbers are staggering, yet suicide reporting in these groups has been hypothesized to be vastly underestimated by as much as 40% (Henderson et al., 2015). Clearly there is a mental health crisis occurring in the fire service. Up until now, there has been little in the way of comprehensive services or care to offer the brave and generous firefighters that serve the state of Minnesota.

While traditional psychotherapy and referral to mental health providers are critical in the treatment of mental health conditions, health care systems and provider

networks are only one piece of the puzzle. Ninety-two percent of firefighters view seeking help as a sign of weakness (IAFF, 2017), the majority skeptical and wary of the mental health system for fear of how it may impact their ability to do a job they love. Dominated by traditional masculine values, where the cultural norm has been to “suck it up and get back on the rig”, reaching out for help is often a firefighter’s last resort. After talking to hundreds of firefighters since MnFIRE’s inception, consulting on the crisis line, providing training, and seeing them individually, there is a deep-rooted belief that others outside of the fire service “just don’t get it”. Trust, understanding and mutual respect, however, are granted with ease and comfort between fellow firefighters.

Peer supporters play a crucial role in aiding a range of services that complement and extend formal health care services. Peer Support is the process by which a trained member of the fire service provides confidential support to another member who is experiencing personal, emotional or work-related problems while acting as a bridge to outside professional services.

Peer supporters in behavioral health serve in many roles: as role models to other firefighters, advocates, as an important source of information and motivation, and as mentors helping people to better understand the road to recovery. What better way is there to shift the culture/stigma of mental health than from the inside, where firefighters who have blazed their own emotional battles successfully share with those that are still caught in the flames of their own struggle.

Peer support has been found to improve a plethora of health outcomes such as decrease depression, anxiety, reduce posttraumatic stress,

“Without the help of MnFIRE, I believe I would not be here today. Words can never express the gratitude I have for helping me regain my life and understand I am OK and will only get better.”

**— MNFIRE PEER
SUPPORT RECIPIENT**

increase quality of life and overall functioning (Proudfoot et al., 2012; Chapin et al., 2013; Van Voorhees et al., 2012). Additional benefits include improved self-esteem, coping and self-care skills, feeling more in control of their own health and increasing their understanding and knowledge of their condition. Not only does peer support improve the lives of those on the receiving end, but research has also found those providing the support have greater self-confidence and self-esteem in coping with their own stress, as well as a sense of satisfaction from being able to help others.

This is how we grow an emotionally resilient fire service, reduce the existing astronomical rates of mental health conditions and stigma, and

make it ok for firefighters to speak up about their experiences witnessing so much of the “dark underbelly” of society. Peer support directly reduces the culture of silence that has all too often resulted in worsening mental health, mental health crisis and suicide by providing emotional support outside of the traditional medical system.

One of our Peer Supporters summed it up perfectly:

I love helping other firefighters — helping them put a name to an invisible demon, especially when it comes to trauma and PTSD. The follow up texts that I receive from the ones who say “You saved my life” make me realize there was a reason I went through what I went through. I now know my work matters.

The firefighter cancer epidemic

By Dr. Zeke McKinney, MD, MHI, MPH, FACOEM; Dr. Nick Blonien, DO & Steve Shapira



The Fire Service has a proud tradition of answering the bell whenever the call comes in. No matter who is calling, the time of day, or location, firefighters spring into action to hopefully mitigate the situation and make the public's day a bit brighter.

Modern day emergency calls cover many things – brush fires, structure fires, automobile accidents, life-threatening medical emergencies, non-life-threatening medical calls, false alarms, and other hazardous situations. All must be responded to with the same speed and professionalism. Firefighters are also our cities' first line of defense during weather-related emergencies, hazardous materials issues, ice & water rescues, building collapses & trench rescues. This truly is now an all-incident profession which requires men & women to become a jack of all trades.

What has also changed are the health hazards firefighters now face. **While occupational firefighter cancer is no longer a new topic within the industry, the need to continue with health and wellness, education, and prevention is an ongoing challenge the fire service will face in the foreseeable future.**

Firefighter education took center stage nationally in 2013 when the Firefighter Cancer Support Network (FCSN) released their landmark document Taking Action against Cancer in the Fire Service. In April that year, FCSN invited a small group of experts to Indianapolis to develop a white paper on cancer in the fire service. The participants came from the legal, medical, and social research communities, and the fire service — including volunteer, combination and career departments and chief officers, firefighters, company officers, union leaders, and local and state fire training directors. Two firefighters who are cancer survivors participated, and every workshop participant knew firefighters who currently have cancer or who died as a result

of cancer. They willingly shared their knowledge, experience, commitment, and questions to better understand and describe the complexity of firefighter cancer awareness. The discussions addressed prevention, diagnosis, treatment, and the long-term implications for the firefighter, the firefighter's family, their coworkers, the fire department, and community policy. Importantly, they also identified a series of actions that firefighters can take to reduce their exposure to chemicals that can cause or facilitate cancer. In two-and-a-half days, the working group outlined and wrote the initial draft of a white paper describing the status of cancer in the fire service and developed answers to very challenging questions.

This report is the result of that working group which was enhanced by the additional review of multiple career and volunteer operational fire companies, additional clinical researchers and medical physicians, other stakeholders, and the leadership of the FCSN. At the conclusion of the conference the FCSN boldly declared

occupational firefighter cancer to be the most dangerous and unrecognized threat to the health and safety of our nation's firefighters.

With that statement, the fire service set out to define the cancer problem. Is there study-based evidence? Has the science been vetted? The overwhelming answer is yes. For example, Dr. Grace LeMasters and her University of Cincinnati-led team looked at 32 previously published studies covering 110,000 firefighters – most of them full-time, white, male workers – to determine the comprehensive health effects and correlating cancer risks of their profession.

She went on to explain, “Firefighters are exposed to many compounds designated as carcinogens by the International Agency for Research on Cancer – including benzene, diesel engine exhaust, chloroform, soot, styrene and formaldehyde.”

These substances may be inhaled, absorbed through the skin, or even directly ingested if proper decontamination methods are not taken. This can happen both at the scene of a fire and in the firehouse; exposure to these carcinogens are not limited to just one facet of firefighting.

Furthermore, “We believe there’s a direct correlation between the chemical exposures firefighters experience on the job and their increased risk for cancer” said LeMasters, who is a professor of epidemiology and biostatistics at the

“We believe there’s a direct correlation between the chemical exposures firefighters experience on the job and their increased risk for cancer”

— DR. GRACE LEMASTERS

University of Cincinnati (UC) and was the lead author of the study. UC epidemiologists found that half of the studied cancers – including testicular, prostate, skin, brain, rectum, stomach, colon cancer, non-Hodgkin’s lymphoma, multiple myeloma, and malignant melanoma – were associated with firefighting on varying levels of increased risk.

Here is an overview of the specific rates for U.S. firefighters compared to the general public:

- Testicular cancer: 2.02 times the risk (again: 100% = double = 2 times)
- Mesothelioma: 2.0 times greater risk
- Multiple myeloma: 1.53 times greater risk
- Non-Hodgkin’s lymphoma: 1.51 times greater risk
- Skin cancer: 1.39 times greater risk
- Malignant melanoma: 1.31 times greater risk
- Brain cancer: 1.31 times greater risk
- Prostate cancer: 1.28 times greater risk

- Colon cancer: 1.21 times great risk
- Leukemia: 1.14 times greater risk

Need more evidence? The International Association of Firefighters (IAFF) and National Institute for Occupational Health & Safety (NIOSH) have also weighed in:

- Cancer caused 61% of the career firefighter line-of-duty deaths from January 1, 2002, to March 31, 2017, according to data from the International Association of Fire Fighters (IAFF). Heart disease caused 18% of career LODDs for the same period.
- Cancer caused 70% of the LODDs deaths for career firefighters in 2016.
- Firefighters have a 9% higher risk of being diagnosed with cancer and a 14% higher risk of dying from cancer than the general U.S. population, according to research by the CDC/National Institute for Occupational Health and Safety (NIOSH).

Further evidence of the increased cancer risk in firefighters continues to be reproduced by various scientists since the study by Dr. LeMasters. From an exposure perspective, the International Agency for Research on Cancer (IARC), part of the World Health Organization (WHO), classifies specific hazards as to whether they are cancer-causing (carcinogenic) or not.

Notably, the IARC has classified the occupation of firefighting as Group 2B (possibly carcinogenic to humans) in 2010. Similarly, the IARC has also

classified polycyclic aromatic hydrocarbons (PAHs), the primary component of soot, as Group 1 (carcinogenic to humans). Consistent with these concerns of exposure, several research studies of US firefighters continue to demonstrate increased likelihood of developing cancer as well as dying from cancer, both for cancer overall as well as for specific cancers. More research continues to be needed as we understand the limitations of studying small numbers of uncommon cancers in addition to the small numbers of some subpopulations, such as women firefighters, who historically have made up only 4% of the fire service nationally.

Prevention is an area where the fire service has made great strides, but there is still work to be done. Many departments have implemented SOP/SOG's with varying levels of success. Numerous organizations have put in place standards or best practices, including the International Association of Firefighters (IAFF), National Fire Protection Association (NFPA), and the Firefighter Cancer Support Network (FCSN). In March of 2018, the National Volunteer Fire Council addressed this need by releasing their 11 best practices which are as follows:

1. Full protective equipment (PPE) must be worn throughout the entire incident, including SCBA during salvage and overhaul.
2. A second hood should be provided to all entry-certified personnel in the department.
3. Following exit from the IDLH, and while still on air, you should begin immediate gross decontamination of PPE using soap water and a brush, if weather conditions allow. PPE should then be placed into a sealed plastic bag and placed in an exterior compartment of the rig, or if responding in POVs, placed in a large storage tote, thus keeping the off-gassing PPE away from passengers and self.
4. After completion of gross decontamination procedures as discussed above, and while still on scene, the exposed areas of the body (neck, face, arms, and hands) should be wiped off immediately using wipes, which must be carried on all apparatus. Use the wipes to remove as much soot as possible from head, neck, jaw, throat, underarms, and hands immediately.
5. Change your clothes and wash them after exposure to products of combustion or other contaminants. Do this as soon as possible and/or isolate in a trash bag until washing is available.
6. Shower as soon as possible after being exposed to products of combustion or other contaminants. "Shower within the Hour."
7. PPE, especially turnout pants, must be prohibited in areas outside the apparatus floor (i.e. kitchen, sleeping areas, etc.) and never in the household.
8. Wipes, or soap and water, should also be used to decontaminate and clean apparatus seats, SCBA, and interior crew area regularly, especially after incidents where personnel were exposed to products of combustion.
9. Get an annual physical, as early detection is the key to survival. The NVFC outlines several options at www.nvfc.org. "A Healthcare Provider's Guide to Firefighter Physicals" may be downloaded from www.fstaresearch.org/resource/?FstarId=11591
10. Tobacco products of any variety, including dip and e-cigarettes should never be used at any time on or off duty.
11. Fully document ALL fire or chemical exposures on incident reports and personal exposure reports.

This campaign highlights the growing awareness of the occupational firefighter cancer epidemic which has swept our country and does not discriminate based on department type. Firefighters in paid-on-call and combination departments are also facing cancer head-on, it's not limited to just career or full-time firefighters.



12%

of all firefighters will develop heart disease at some point in their lives. Cardiovascular issues are by far the leading cause of officially recognized line-of-duty deaths.

10X

First responders contemplate suicide at a rate up to 10 times higher than the general population. Recent studies have shown that 50% of firefighters have thoughts about ending their life.

1 in 5

Minnesota fire departments have reported at least one firefighter diagnosed with cancer; and 1 in 10 have multiple cancer cases.



If you're in crisis, need help or need to file a claim, please call our 24-hour hotline: **888-784-6634**

This confidential, free service is available for all active volunteer, paid-on-call, part-time and full-time Minnesota firefighters.

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