



THE PROBLEM

There is an escalating crisis in the Minnesota fire service – one that is costing firefighters their lives. The high incidence of illness – particularly cardiac, cancer and mental health challenges – is alarming and requires an immediate response.

These illnesses are more common than many people, including firefighters, realize – with both direct and indirect impacts. Chronic illness, including cardiac, cancer and mental health challenges, can cost fire departments thousands of dollars in lost time, recruitment and training costs. At the same time, there is a significant gap between firefighters identifying a health need and actively reaching out to get help and take care of themselves.

On top of it all, this alarming statistic shows why there is urgent work to be done: Minnesota ranks 45th nationwide in per-capita fire service spending. Therefore, it's no surprise why firefighter health and safety continues to suffer due to a lack of public awareness and attention within the state. Departments do as much as they can with limited resources, but there is no unified vision or commitment at the city or state level to prioritize fire service funding. Something must be done.

The Minnesota Firefighter Initiative (MnFIRE) launched in 2017 as an innovative and inclusive approach to unify and

spark conversations among firefighters, their families, their communities and state policymakers regarding firefighter health, specifically cardiovascular disease, cancer and mental health. MnFIRE was created to equip firefighters and the people who care about them with the resources they need to prevent and treat common illnesses among firefighters and empower them to make good decisions about their health. Protecting firefighter health starts with firefighters taking steps to take care of themselves, so they can continue protecting communities and the fire service as a whole. This is beneficial both for the fire service and all Minnesotans.

Firefighters are obligated to face hazards every day on behalf of those who can't or won't, which is why we must confront these threats facing Minnesota's fire service – with the same bravery, determination and commitment they bring to fighting fires and protecting Minnesotans.

About the MnFIRE Initiative

The high incidence of illness – particularly cardiac, cancer and mental health challenges – among our colleagues in the Minnesota fire service is alarming and requires an immediate response. The Minnesota Firefighter Initiative (MnFIRE), led by the state's three preeminent fire service organizations, is a statewide advocacy campaign to equip firefighters and the people who care about them with the resources they need to prevent and treat these illnesses and empower firefighters to make good decisions about their health.



CARDIAC

Matt Frantz, Rice Lake fire chief, was sent home after responding to a call at 1 a.m. for a chimney fire because he wasn't needed. Later that day, Matt died of a heart attack at age 42.

Shane Clifton, St. Paul firefighter and paramedic, died of a massive heart attack at age 38 while on duty – help was right there, but it wasn't enough.

Cardiovascular disease is the number-one killer of firefighters nationwide and is by far the leading cause of line-of-duty deaths in the fire service. According to the International Association of Firefighters, more than 12 percent of all firefighters will develop heart disease at some point in their lives. Even young and healthy firefighters suffer from hardened arteries and impaired heart function after just three hours of prolonged firefighting, according to a 2010 study from the Illinois Fire Service Institute.

According to the HealthPartners Occupational Medicine MD team, firefighting strenuously challenges the individual in terms of both strength and cardiorespiratory status. Cardiorespiratory fitness (CRF) testing needs to be performed on all firefighters as a baseline and as an ongoing metric to evaluate their level of fitness. This is the key metric that allows firefighters to engage safely in this challenging work. There needs to be a commitment to endurance training and outcomes measured CRF testing in order to reduce and minimize adverse cardiac events among firefighters.

Sleep also plays an important role in limiting cardiac issues. If firefighters do not get enough quality sleep, resting metabolic rates decrease and cause weight gain, increasing the risk of heart attack and stroke. Maintaining work schedules – by providing proper staffing – that allow firefighters to get enough sleep can be paramount in preventing cardiac disease.

Traumatic stress can also increase a firefighter's risk of heart attack, with a study from the University of California – San Francisco finding that even limited exposure to trauma can boost inflammation in the body, a key risk factor for heart disease. Pulmonary health also can negatively impact heart health. Breathing in toxic fumes and particles during overhaul, exhaust pollution from the apparatus bay and exposures during regular calls can adversely affect lung function, which is associated with an increased risk of heart failure.

Firefighters tend to embrace a “do whatever it takes” attitude when on the job – the goal is to get firefighters to take the same approach to their health.



CANCER

Steve Shapira, a retired St. Paul firefighter who has fought more than 1,000 fires in 17 years, was diagnosed with non-Hodgkin lymphoma three years ago. Following his diagnosis, Steve received four separate calls in a single day from other firefighters who were diagnosed with various forms of cancer. He's been unable to claim workers' compensation from the City of St. Paul even though two different doctors confirmed his cancer was job-related and his pension plan recognizes his cancer as duty-related.

In Albert Lea, in a department with 16 full-time firefighters, three developed cancer within one year.

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 (CDC). According to the National Institute for Occupational Safety and Health (NIOSH), firefighters have a 9 percent higher risk of being diagnosed with cancer and a 14 percent higher risk of dying from cancer. The rate of line-of-duty deaths from cancer-related illness is rapidly increasing and is on pace to overtake cardiac disease as the leading killer of firefighters nationwide.

The most frequently diagnosed cancers in firefighters are found in the digestive, respiratory and urinary systems, as well as orally, including the salivary glands and throat. Specific cancers related to carcinogen exposure – such as malignant mesothelioma – are more than twice as prevalent in firefighters than in the general population. The chance of lung cancer and leukemia diagnoses, and cancer-related death increases with the amount of time spent at fires.

Despite statewide bans on fire retardant chemicals, the presence of existing synthetic materials increases the amount of smoke and toxic gas released during occupied structure fires. Dirty or ill-fitting turnout gear can increase the risk of exposure to carcinogens, and prolonged exposure to the skin and lungs is especially dangerous. In order to limit occupational cancer risk, the fire service must improve efforts around proper training, use, cleaning and maintenance of protective gear during all phases of firefighting.

Minnesota is one of 33 states to recognize these cancers as an occupational hazard of being a firefighter. According to OSHA, in the last decade, only one firefighter in all of Minnesota has had his or her cancer accepted as an occupational injury. Experts and researchers continue to work on finding a definitive link between fire exposure and cancer.



EMOTIONAL WELLNESS

Three of former St. Paul firefighter Brian Cristofono's colleagues — and friends — took their own lives, and Cristofono himself attempted suicide twice. PTSD cost him his marriage and, ultimately, his job. The City of St. Paul denied his disability claim, stating that unless there was a physical injury associated with a fire, PTSD could not exist. Cristofono was forced to retire and now lobbies to make it easier for firefighters to claim PTSD as a job-related injury.

Scott Geiselhart, with the Frazee fire department, turned to alcohol and eventually methamphetamine to deal with his PTSD. Talk therapy has helped Scott cope with his trauma and kick his addictions. His department now has debriefings after every traumatic call to help firefighters work through what they experienced.

An abundance of recent research pertaining to firefighter health shows that those in the fire service experience much higher rates of mental health challenges than the general population — particularly in the areas of sleep disorders, depression, substance abuse, post-traumatic stress disorder and suicidal ideation/action. In fact, research suggests that there is an association between the number of years of duty in the fire service and higher levels of suicidal ideation/action.

The on-the-job bravery of firefighters is legendary, but that doesn't mean they should suffer in silence when facing occupational stress and emotional challenges — ignorance and lack of support from the fire service often makes emotional health concerns worse over time.

Dr. R John Sutherland, with North Memorial Medical Center, said he often sees firefighters experiencing something he refers to as a "hero complex" — if they go get help, then they're not strong enough. He says most firefighters can recall at least

three traumatic events, but it's the failure to talk about those memories that creates a dangerous feedback loop.

National standards (such as NFPA 1500) recommend that all firefighters have access to behavioral health services, yet many departments don't have programs in place due to budget realities and other priorities. An Employee Assistance Program (EAP) is often provided through employer health plans, but because 93 percent of Minnesota firefighters are non-career, EAPs are often not available to them because of their part-time status. In addition, it's important to ensure that EAP assistance is firefighter-specific and responsive to the unique challenges they face, rather than generic.

Mental and emotional health is as important as physical health for firefighters, as a proactive mental health program can save fire departments significant time and money in the long run (not to mention the lives of brothers and sisters in the fire service). Some of the fundamental and extremely important pieces of behavioral health programs that can help save lives include:

- Regular mental health or behavioral health education
- Employee Assistance Program (EAP)
- Easy access to counseling services — paid for by the department, local union or individual's health plan
- Formal mental health "fitness for duty" examinations
- Critical Incident Stress Management (CISM) debriefings
- Family Support Night
- Peer Support team

Also, non-clinical interventions — such as peer support — can be an effective starting point for assessing and managing firefighters' emotional stress levels without causing additional stress, concern or stigma. Firefighters see and experience traumatic situations on a regular basis, many of which would be unbearable for an ordinary citizen. We must end the stigma attached to mental health challenges and ensure firefighters have an outlet for processing traumatic experiences.

SEVERE UNDERFUNDING

Minnesota ranks 45th in the nation in per-capita fire service spending, despite being the 21st most populous state and 12th largest in area. Critical funding shortages throughout Minnesota departments make it difficult for fire service leaders to prioritize firefighter health measures and equipment, such as department-wide health checkups,

gear-cleaning tools and mental health resources. All public decision-makers, from the State Capitol to city halls, must make the Minnesota fire service a funding priority, not simply to protect the lives and property of Minnesotans, but to give firefighters the help they need to stay healthy and optimally productive in service to their communities.

THE SOLUTION

Improving firefighter health outcomes requires attention and investment

Moving Minnesota just one spot – to 44th in the nation – will require an additional \$15 million in statewide investment, and it will take \$100 million to get to 40th. Education and focusing on prevention and treatment is a sound investment because the cost of treating sick firefighters and paying disability are far higher than preventative strategies. While firefighters think illness won't happen to them, the statistics show the opposite is true. Policymakers have a duty to help mitigate firefighters' risks on the job, in order to keep communities safe and firefighter families thriving.

What MnFIRE is doing to help

The Minnesota Firefighter Initiative: Gearing Up for Health brings together the Minnesota Professional Firefighters (MPFF), Minnesota State Fire Chiefs Association (MSFCA), the Minnesota State Fire Department Association (MSFDA), the Northland F.O.O.L.S. and other supporters to set the bar for prioritizing health within Minnesota's fire service community, and to educate firefighters and their families about risks, preventative measures and resources to ensure long, productive careers and retirements. It is focused on unifying and sparking conversations among firefighters, their families, their communities and state policymakers regarding firefighter health, which ultimately benefits firefighters, fire departments and the state of Minnesota. As the brotherhood and sisterhood of the Minnesota fire service, MnFIRE brings people together to help fellow firefighters prioritize health and safety in all aspects of their lives.

MnFIRE is committed to:

- Equipping firefighters and their families with the resources they need to educate about, prevent and treat the common illnesses among firefighters, empowering them to make good decisions.
- Presenting a unified voice, led by the state's three preeminent fire service organizations, to advocate for change within Minnesota fire departments, city halls and the State Capitol.
- Educating fire service professionals and their families about the urgency of firefighter health, in order to influence an increase in awareness and changes in long- and short-term habits – from cleaning "dirty gear" to recognizing and addressing firefighters' mental health needs.
- Providing Minnesota's firefighters with the tools they need to protect their health on their own terms, at their own pace.

THE BOTTOM LINE

Protecting firefighters from chronic illness allows the fire service to be most effective in protecting the communities it serves. MnFIRE is leading the charge by creating a sustainable resource for every Minnesota fire department to prioritize firefighter health, with powerful messages and useful tools for action and advocacy. Eventually, we want this initiative to reach policymakers at the State Capitol, in order to secure more funding for firefighter health and the preventative measures that protect it.

You can help support our efforts by:

- Educating elected leaders in your jurisdiction about the health risks to firefighters, so they can make informed budget decisions about investment in education and prevention.
- Talking to your city's fire chief and learning more about how your local fire department is handling cardiac, cancer and mental health threats to its firefighters.
- Advocating for firefighters – specifically firefighter health – at the state and local level by writing letters to and meeting with legislators, speaking to civic organizations and government committees about the underfunded Minnesota fire service.