

INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS



Statement of
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U.S. HOUSE OF REPRESENTATIVES
On
EXAMINING INITIATIVES to ADVANCE PUBLIC HEALTH

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Thank you, Chairman Burgess, Ranking Member Green and distinguished members of the Subcommittee. My name is Kevin O'Connor, and I am the Assistant to the General President for Governmental Affairs and Public Policy at the International Association of Fire Fighters. I appreciate the opportunity to appear before you today on behalf of the International Association of Fire Fighters and the over 305,000 professional fire fighters and emergency medical personnel that serve in each of the country's 435 Congressional districts.

As our nation's front-line domestic responders, fire fighters regularly respond to a variety of incidents both natural and manmade. Whether it is a vehicle accident, residential fire, hazardous materials spill or countless other emergencies, fire fighters are always on the frontlines, regardless of the size and complexity of an incident.

In 2015, fire departments responded to nearly 35 million calls. Every day, fire fighters take calculated risks – risks for which they have trained – but risks for which they know may cause injury or even death. It is a possibility no fire fighter wishes to meet, but all understand is part of the job. Over 100 fire fighters die in the line of duty every year, and thousands more suffer significant injuries.

Every September we pay tribute to our fallen by etching their names on granite walls at the IAFF Fallen Fire Fighters Memorial located in Colorado Springs. But in recent years, we have noticed a new trend. Since 2002, nearly 60% of the names added are those of fire fighters who have died from occupational cancers. I am sad to say that cancer is now considered the leading cause of line of duty death among fire fighters.

We appreciate that the Subcommittee has invested its significant resources into studying this matter and are pleased to be here today in support of H.R. 931, the Firefighter Cancer Registry Act, introduced by my friend and esteemed member of the Subcommittee, Representative Collins of New York. By establishing a national cancer registry specifically for fire fighters, we hope to help stem the tide of this disease in our ranks.

The Risk for Cancer in Fire Fighters

Our nation is served by approximately one million professional and volunteer fire fighters who respond to nearly 35 million calls for assistance each year. Statistics maintained by the National Fire Protection Association indicate that there are approximately two million fires or hazardous materials incidents annually, routinely placing fire fighters in environments where they will be exposed to carcinogens and toxic chemicals.

In addition to heat and smoke, fire fighters are routinely exposed to known carcinogens including arsenic, benzene, diesel exhaust, formaldehyde, polychlorinated biphenyls and vinyl chloride. Fire fighters are also exposed to the now-ubiquitous halogenated and organophosphorus flame retardants which we know are toxic when on fire.

These exposures are often chaotic and uncontrolled, and may last for significant periods of time. Furthermore, such exposures, while perhaps of little harm for one exposure, bio-accumulate, causing damage to a fire fighter over time. Despite modern advances in personal protective equipment and

clothing worn by fire fighters, such ensembles are often inadequate or only partially effective at providing physical protection for a fire fighter's skin and respiratory system.

Research on Cancer in Fire Fighters

We know definitively that fire fighters have elevated rates of many cancers in large part due to three significant studies, studies which also demonstrate a strong link between fire fighting and such cancers.

The National Institute of Occupational Safety and Health (NIOSH) within the Centers for Disease Control examined 30,000 fire fighters from San Francisco, Philadelphia and Chicago. Examining statistics over fifty-nine years, this study found fire fighters have a statistically significant increased risk of dying from seven different types of cancer compared to the general population:

- i) Mesothelioma (100% increase)
- ii) Rectum (45% increase)
- iii) Buccal/pharynx (40% increase)
- iv) Esophagus (39% increase)
- v) Large intestine (31% increase)
- vi) Kidney (29% increase)
- vii) Lung (10% increase)

This study also found excess bladder and prostate cancer incidence among fire fighters under age sixty-five.

A 2006 meta-analysis conducted by LeMasters at the University of Cincinnati examined data from thirty-two smaller studies of fire fighters for twenty different cancer types. Their research identified ten cancers for which fire fighters were at an increased risk as compared to the general population:

- i) Testicular cancer (102% greater risk)
- ii) Multiple myelomas (53% greater risk)
- iii) Non-Hodgkin's lymphoma (51% greater risk)
- iv) Skin cancer (39% greater risk)
- v) Prostate cancer (28% greater risk)
- vi) Malignant melanoma (32% greater risk)
- vii) Brain cancer (32% greater risk)

- viii) Rectum (29% greater risk)
- ix) Stomach (22% greater risk)
- x) Colon cancer (21% greater risk)

A third study studied the likelihood of cancer risk in a cohort of 16,422 fire fighters from five Nordic countries. Cancer incidence was assessed by linking national cancer registries to census data on occupations from 1961 – 2005. The study found an increased risk for all cancers combined in fire fighters similar to the previously mentioned NIOSH study. It also found a statistically significant increased risk for developing the following cancers:

- i) Prostate cancer (13% increase)
- The highest risk was found among fire fighters 30 – 49 years old: (159% increased risk)
- ii) Malignant melanoma (25% increase)
 - iii) Non-melanoma skin cancer (33% increase)
 - iv) Mesothelioma in fire fighters over 70 years of age (159% increase)
 - v) Lung adenocarcinoma (29% increased risk)

Despite the knowledge gained from these and other studies, we know that our understanding of the link between fire fighting and cancer is incomplete. Although the three studies referenced here are extraordinary in scope, many studies are limited by relatively small sample sizes and the absence of certain demographic groups within the cohort, including women and minorities. Studies have also been constrained by the lack of critical data such as the number of years on the job and the frequency, number and type of exposures.

So, while we know there *is* a link between fire fighting and cancer, we still lack significant details about the relationship. We do not fully understand different routes of exposure, the effectiveness of personal protective equipment and decontamination procedures, the relationship between certain flame retardants and fire suppression foams and cancer development, as well as many other unstudied or understudied topics. Further, we have yet to fully understand the trend of unusual cancers in otherwise young and healthy fire fighters.

A New Trend

As I mentioned previously, every individual who signs up for the job understands that it comes with inherent risks. To be frank, the job attracts a certain type of person. A certain amount of bravado seems to be ingrained in every fire fighter, and we wear it on our sleeves, literally, as a badge of honor.

In the past, wearing soot-coated helmets and fire fighting ensembles silently signaled to the world that the wearer was a brave and experienced fire fighter. Traditionally, this display of boldness was commonplace throughout the fire service. However, we failed to grasp the silent dangers associated with this custom and often rebelled against some efforts to clean our gear of soot. Thankfully, through better education and a recognition of the growing presence of cancers in the fire service, this outdated tradition is slowly changing.

Before I assumed my current position, I spent sixteen years as a frontline fire fighter in Baltimore County where I was also served as a Hazardous Materials Response Team member. I fought the everyday residential fires, but also responded to countless incidents involving hazardous materials and was on the first alarm assignment on fire and HAZMAT calls at Bethlehem Steel. And yes, I was young and reckless. I did not always wear my full protective ensemble or put a premium on safety and risk reduction.

Today, I sit before you as a cancer survivor. Eighteen months ago, at 51 years of age, I learned that I had prostate cancer; a type of cancer that is more likely to occur in men older than I, unless you are a fire fighter. Studies suggest fire fighters are 159% more likely to develop prostate cancer than the general population during the prime of their life.

I have suspicions that my cancer is the direct result of my years within the fire service. My father is healthy at 85 and has never experienced cancer. Similarly, my paternal grandfather lived 94 years, and my maternal grandfather lived 82 years before passing from non-cancer related illnesses.

Today, I am happy to report that my prostate cancer was surgically removed and I am healthy.

The Firefighter Cancer Registry Act

So, Mr. Chairman, I think you can understand why this is an issue that is close to my heart. As you know, the Firefighter Cancer Registry Act will direct the Centers for Disease Control to establish and maintain a specialized cancer registry specifically for fire fighters in order to collect detailed data regarding fire fighters with cancer on a national scale, allowing researchers to more fully examine and understand the broader epidemiological cancer trends among fire fighters. In simple terms the Firefighter Cancer Registry Act will lead to a preeminent centralized data collection point that will aid in studies that we expect to result in better prevention and treatment measures for fire fighters.

With this fire fighter cancer registry, researchers will have a centralized source to acquire an abundance of high-quality data for additional scientific studies. Fire fighters' basic demographical data will be collected and stripped of all personally identifiable characteristics. Additionally, the registry will collect several data points including, age, gender, ethnicity, the work history of the fire fighter, their status as a professional or volunteer fire fighter, the number of years of the job, an estimated number and type of fire incidents plus any known relevant risk factors.

Collecting data on a national basis will permit scientists to conduct more comprehensive studies correcting the shortcomings of previous studies, and I am confident that this registry will be the catalyst to better cancer prevention measures in the future. And I am equally confident that the scientific knowledge that will originate from the registry's data collection will be responsible for improvements in cancer treatments for those that contract this terrible disease.

With more than one million fire fighters serving nationwide, the registry is intended to be inclusive of the entire fire service population. Therefore, data will be collected on professional fire fighters as well as volunteer fire fighters. Furthermore, this registry shall remain completely voluntary.

Although the bill has yet to be scored, the Firefighter Cancer Registry Act is anticipated to be carried out at an extremely low cost. That said, we believe that the investment made will be recouped as the number of occupational cancers begins to decline, and fire fighters' healthcare expenses are moved from the liability column to the asset column of the balance sheet.

Lastly, I am proud to say that I have yet to encounter any opposition to the Firefighter Cancer Registry Act. It is supported by the entire fire service community and has been endorsed by every major national fire service organization.

Conclusion

I'd like to conclude by thanking the Subcommittee for the opportunity to testify today. The International Association of Fire Fighters is committed to the fight against cancer in the fire service, and we appreciate your interest in ways the federal government can aid in this fight. We are happy to offer our cooperation and expertise as you continue to study the Firefighter Cancer Registry Act and look forward to, hopefully, its swift consideration by the full House.

I am happy to answer any questions you may have.