

# Example of emerging trends in the fire service research paper

[Law](#), [Security](#)



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## **Abstract**

Firefighters coupled with other emergency responders are evidenced by numerous dangers within their daily operations. As such, the various firefighters are exposed to smoke, extremely deadly temperatures stress within the operative environment coupled with issues entailing the personal protective gear. Despite the notion that the varied fatalities reported are associated with burn and smoke inhalation, recent studies have shown increased deaths as a result of cardiovascular events. Studies within the firefighting frontier have revealed that cardiac related issues have accounted for the highest number of non-incident firefighter deaths. United states fire administration (USFA) coupled with the National fire protection association (NFPA) have inculcated a proper evaluation of the firefighter fatalities since

1977. Hence, this paper will evaluate the emerging trend of increased cardiac related fatalities among the firefighters.

## **Introduction**

Firefighters have been an integral part of the society. Since the inception of firefighting department, numerous fires have been handled effectively with many lives being saved. The significance of the firefighting has been quite significant with various national organizations being set up to examine and ensure proper welfare gain for the firefighters. However, the NFPA and USFA have revealed recently that cardiac related deaths have been rising at a tremendous rates, statistical analysis has revealed that 440 fighters who succumbed to death out of 1006 died from cardiac death. Furthermore, statistics reveal that the majority of the deaths were triggered by either stress or exertions. Hence, the re-evaluation of the aspects circumventing firefighter welfare has become an imperative aspect. Pundits assert that re-examination of issues affecting firefighters. Thus, this paper will evaluate the emergent trend of increased cardiac related deaths among the firefighters.

## **Background and significance**

First and foremost NFPA and USFA have been collecting data related to firefighters since 1977. Through a cross evaluation and collection of data, important data has always been collected regarding the various issues related to firefighters Dalton (2013) affirms that since 1990, a significant rise in cardiovascular related deaths have been evidenced. Therefore, Dalton (2013) affirms that the significant rise has been under-researched. The major reason for the under-researched aspect of cardiac related diseases has been

pegged on the increased emphasis on firefighting safety and reduction of fire related calamities. As such, within the recent studies, 43% of the deaths over the years have been as a result of cardiovascular related reasons. Most predominantly, artery blockage has taken a pedestal in the numbers of deaths.

## **Significance**

### Literature review

Bennett (2012) asserts that the firefighting industry has been intertwined to the societal fabric through their heroic acts in saving both lives and property. The impact made by the firefighters has been too profound that USFA and NFPA have called for a research into the sudden increase in cardiac related deaths. Apparently, the few research undertaken in ascertaining the causes of the increased cardiac deaths, pundits assert that other factors need to be examined. Wellness, safety coupled with firefighter health has been other aspects that have been evaluated formidably. Through a collective strategy the various authorities charged with evaluation of firefighters information has been obtained effectively. Accordingly Bennett (2012) affirms that USFA has inculcated varied goals construed towards the reduction of losses of lives within the firefighting frontier. In order to attain the goal of reduced deaths, the various authorities have invested highly into strategies aimed at reducing risks that are intertwined to cardiovascular diseases. As a clear part or strategy, the National volunteer fire council organization or foundation has established an extensive questionnaire to determine the various aspects circumventing firefighters. Wellbeing, personal health and safety practices

have been the three core areas of evaluation by the volunteer foundation. Accordingly, the extensive research has been construed towards determining the various aspects that stem from both the personal and professional spheres of operation. Accordingly, the questionnaires undertaken were directed towards the determination of;

- What causes cardiac deaths
- Are the facilities exposed to firefighters enough to sustain a proper and healthy individual
- What are the various aspects that are causing the increase in cardiac deaths

## **Results**

The results from the firefighter foundation questionnaire which were undertaken through the consent of USFA towards the identification of various health and safety issues affecting firefighters revealed varied aspects. Accordingly, the various emerging issues that have been blamed for the increased cardiovascular deaths among the firefighters have been;

- Nutrition
- Physical activity levels
- Alcohol
- Tobacco use
- Diabetes
- Stress

Additionally, there have been evidenced various safety issues that formed the result findings which were inclusive of the various safety, measures

incorporated by the fire department. Usage of equipment, policies that circumvent protective gears and vehicle safety issues have also sprung up as important areas of evaluation. The aforesaid issues have been pegged as significant risk factors that have been catalysts to the increased cardiac deaths among the firefighters. However Bennett (2012) affirms that significant attention should be pegged on the various employers of the firefighters, health care industry coupled with federal government.

Decreased productivity additional to the compromised health status of the firefighters has become aspects of integral evaluation. Bennett (2012) asserts that from the evaluation of the firefighters, it was found that;

- 40% had increased levels of blood cholesterol
- 32% of the firefighters questioned asserted that stress has become a common aspect within their weekly routines of operation
- 8% revealed that driving under influence was a common aspect especially during working hours
- 63% of the firefighters did not meet the CDC guidelines in regards to physical activity weekly
- 87% of the firefighters have invested highly in implementing various strategies construed towards self-improvement

## **Discussion**

Risk factors predispose both firefighters and the society to the various cardiac related diseases. High cholesterol content, alcohol abuse, high blood pressure and so forth are risk factors that have been evidenced both within the firefighting department and the society. Accordingly, Bennett (2012)

asserts that for a more plausible evaluation of the reasons for increased cardiac deaths, it is imperative that a division of the various risk factors is undertaken. From the evaluation, it is imperative to note that there are modifiable and non-modifiable risk factors. Non-modifiable factors include age, gender and genetics which can cause cardiac arrest. The non-modifiable factors cannot be changed and still cause the increased cardiac deaths. On the other hand, the modifiable factors such as tobacco use, diet and physical exercise are aspects that need integral analysis. Accordingly, through a research based on the modifiable factors, a plausible avenue for the results will be evidenced.

## **Recommendation**

- Increasing routine health based screening of the firefighters
- Nurturing a positive lifestyle policy among the firefighters
- Ensuring that a positive and safe work environment is evident for the firefighters

## **References**

- Bennett, L. T. (2012). Fire service law. Upper Saddle River, N. J.: Pearson Prentice Hall.
- Dalton, J. (2013). Fire Team USA residential fire sprinkler resources. Washington, D. C. Cengage Brain Publishers.