

Formal research proposal of cancer in the fire service

Literature



Purpose of the Study The study was undertaken to establish the occupational risk faced by the fire fighters. It is said that they stand the highest chances of contracting cancer as compared with the rest of the workers from other related fields of work. The study also sought to identify the rates of the various types of cancer like the testicular, brain, colon, bladder, Kidney and the prostate cancer. The study is also meant to identify the various examples of toxic substances the fire fighters handle that expose them to high chances of contracting cancer.

There is the likely process in establishing the link between fire stations and the rate of cancer infections (Journal of Occupational and Environmental Medicine, 2006). The study was carried out to establish the truth behind various investigations that were carried out by various organizations and persons. According to the investigation done by the University of Cincinnati the information was analyzed on 110, 000 fire fighters and the results showed that there was an increase by 100 % of testicular cancers and a 28% increase of prostate cancers among the fire fighters.

The study will cover the fire fighter cancer bill that was passed to make possible the workers to claim compensation for the cancer diseases related to work places. The study also sought to cover the different types of cancer of most prevalent amongst the fire men; these include the non-Hodgkin lymphoma and prostate cancer, multiple myeloma which is a deadly cancer that attacks bone marrow (Rowson, 2008). Finally, due to the examination done on the health of the fire fighters, the data obtained will be used to imply improvements with regard to the worker and health safety act that will

suggest a real model to be adopted and followed by all the countries worldwide.

The results obtained will be of benefit to the firemen since the objective was to set a model that explains the prevalence of the cancer disease within the fire stations and hence call for concrete solutions from the state emergency services in the countries.

Problem Statement

Is it true that the cancer disease is most prevalent among the fire fighters in the fire service organizations? If so then what is the cause of the disease and which is the best way to handle its victims? The evidence is clear that the highest number of cancer victims is fire fighters. This is so because the fire fighters are always exposed to many carcinogenic compounds like benzene, chloroform, soot, styrene and formaldehyde which they inhale or sometimes get absorbed through the skin in the process of fire fighting. Many of the victims believe that their cancer was contracted from them being exposed to hazardous chemicals while in their line of duty.

The investigations that have been done into suspected cancer cluster at fire stations has not clearly shown the link that exists between the buildings and the rate of cancer increase. The state wide investigation in Queensland had begun due to the brain cancer incidences among the Queensland fire fighters and the fire and rescue services. According to the report by the United Fire fighters Union the rate of the testicular cancer is three times higher in fire fighters than in the general population.

Research Questions

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The study will attempt to answer the following research questions. 1. Which gender is mostly affected by the cancerous disease? 2. Which type of cancer is mostly suffered by the fire fighters? 3. What is the probability that the person who has worked several years in the fire service stands highest chances of contacting cancer? 4. What are the regularly used chemical substances that expose fire fighters to cancer?

Definition of Terms

Fire fighters will refer to the people who are involved in the activity of extinguishing fire whenever there is a big breakout using sophisticated equipments. Cancer will refer to the disease that is caused by the toxic chemicals that are used within the work stations; Fire station refers to the place of work where fire fighters and the equipments they use are kept. Toxic substances will refer to the harmful chemicals that are used within the stations.

Chapter Summary

The first chapter broadly examines the purpose of the study, the problem statement, the research questions and the definition of terms that have been used in the project. The purpose of the study in this chapter, examines the studies that were undertaken to establish the occupational risk faced by the fire fighters since it is believed that they stand the highest chances of contracting cancer as compared with the rest of the workers from other related fields of work. This is the reason why I am doing this project proposal.

This part of the chapter also identifies the various cancers that affect the fire fighters and they include: the testicular, brain, colon, bladder, Kidney and

the prostate cancer. It also identifies the various examples of toxic substances the fire fighters handle that expose them to high chances of contracting cancer. The problem statement examines the reason for doing the project. This is why I decided on doing the project and what triggered me into doing the project. It identifies to the reader the problem that is affecting the society and in this case the effects of working in a fire station and the reason why people need to deal with the problem. It also proves the results of the studies and identifies the various people who have done the studies.

In the research questions, I will identify the various questions that will help in the study of this project. These questions will help in the investigation of the problem and will help in the collection and identification of the data that will be used in the project analysis and discussion. The research questions can be in form of a questionnaire to data information for the project. And lastly, in the definition of terms, I will define the various terms that are used in the study of this project. I will define the terms such as the fire fighter, cancer and the fire station.

Studies that have been conducted in years confirm that fire fighters are at greatly increased risk from work-related cancer. It is believed that people who have worked in a fire station have had a higher risk of being diagnosed with various types of cancer. This has been realized in the book "In Cold Daylight" written by Pauline Rowson. This book is based on tragic true story of the fire fighters from one watch in the UK.

Rowson was married to a former fire fighter from Portsmouth who had also been diagnosed with cancer and she wrote the In Cold Daylight, after hearing that several fire fighters from one watch had contracted cancer. She <https://assignbuster.com/formal-research-proposal-of-cancer-in-the-fire-service/>

wrote the book without any study being conducted in the USA yet (Rowson, 2008). A three year study was conducted by the University of Cincinnati. The research found that the rates of the testicular cancer were a hundred percent higher and the prostate cancer was twenty- eight percent higher among the fire fighters. In the research, it was also found out that there was a fifty percent increase in non-Hodgkin's lymphoma and multiple myeloma.

This is because the fire fighters are exposed to many compounds designated as carcinogens or cancer-causing agents including benzene, chloroform, soot, styrene and formaldehyde which can be inhaled or absorbed through the skin at the scene of a fire. This proved the fact that many fire fighters have the risk of contracting the cancer disease. The study also shows that among the number of cancer victims, the highest number of them have worked in a fire station since they are exposed to risky chemicals that cause the disease (Journal of Occupational and Environmental Medicine, 2006).

In a recent research of data of two decades in the Massachusetts cancer registry between 1986 and 2003, 2, 125 cancer diagnoses were of professional male fire fighter. Fire fighters have nearly twice the risk of brain cancer and thirty six percent of colon cancer. This shows that fire fighters suffer certain cancers at a higher rate than others (Rowson, 2008). Investigations have been launched by the Queensland Health to investigate six cases of cancer among current and former staff at Atherton fire station. It was found that the incidence of brain cancer at the fire station is 21 to 62 times higher than the rest of Queensland but they have not found any link of the fire station building to the increase in the cancer cases.

Support groups have also been established to raise funds for the awareness campaign to help fight the cancer risk. For example, Gary Steele Prostate Cancer Fund & Fire Service National Benevolent Fund Charity Fire Engine Pull was launched in the support of the Leighton Hospital Prostate cancer support group in the fight of cancer (Gary Steele Prostate Cancer Fund, 2006). There are some evidences that shows that fire fighter have been diagnosed with cancer. For example, Michael Dubron was a fire fighter and he has cancer. He founded the Firefighter Cancer Support Network.

This is a volunteer network of the fire department personnel who have been cancer survivors and are willing to share their experiences. The network was founded in when the founder was diagnosed from cancer and survived (Dubron, 2006). There have been bills that have been passed to the house to help the cancer victims for compensation. Firefighter cancer bill was passed allowed the fire fighters to make a worker's compensation claim for cancer as long has they have not smoked cigarettes in the last five years. The fire fighters with cancer can make claims on the basis of the hazards of the workplace that caused the injury. This bill was passed since many of the fire fighters have been diagnosed by the cancer and they are not compensated in any way.

Their families are also not compensated. The fire fighters risk their lives from getting cancer in the name of saving the society and the nation at large from fires (Rowson, 2008). There has been failure in establishing the link between fire station and an increase in the rate of cancer. The investigations took place at the Queensland Health Investigation which was started in December

following the many cases of various cancer forms among former and the present staff members at a fire station in Atherton on the tablelands.

The Queensland Health investigations were to examine the hazards of the firefighters due to various exposures at their work place. So far, there has been no link found between the cancers and the station. Due to this, there was a launch of investigation, into five cancer cases among the present and the previous staff at the Atherton fire station though there is a believe that there are six staff members who have identified with different forms of cancer (ABC News, 2008). According to Brad McCulloh of the Queensland Health, the explorations found that brain cancer had occurred 21 to 62 times and this figures were higher than the rest of Queensland. Therefore the blame will not be laid upon the building and the station will not be closed down.

Mr. McCulloh also says that radiation ionization and family record are the known risk features for brain cancer. Since there are no recognized ionization radiation sources at the fire station, thorough testing will take place (ABC News, 2008). The Ian MacKenzie, who is the Deputy Fire Commissioner, said that there was no identification made at the station and therefore it was not linked directly to brain cancer. He also adds that there has been acceptance from the staff on the findings but they also opt for extra investigations. The outcome from Queensland health encouraged many since they portrayed that no link was present from the fire station to brain cancer.

The environmental testing was as a result of exact reassurance to the staff in order for the future staff to ensure that there will be no problem (ABC News, <https://assignbuster.com/formal-research-proposal-of-cancer-in-the-fire-service/>)

2008). Queensland Premier Anna Bligh said that there will be a statewide investigation which will feature brain cancer among Queensland firefighters, the Queensland fire and the Rescue service which has shown great interest in the national investigation which is to be conducted by Monash University to the cancer incidence among firefighters. This was given a positive acknowledgement by Neil Roberts the Minister for State Emergency Services.

The minister said that, the report was an important step in the investigation on process and if the information in the science literature or if there are more cases of which might arise, there will be a reopening of investigation. Another research conducted by the United Firefighters Union, it was found that the rate of testicular cancer among firefighters was three times higher than the general population. After a cancer cluster was identified at Toowong in Brisbane in 2006, the ABC abandoned their offices (News-Medical. Net, 2008).

Cancer among fire-fighters is as a result of their exposure to carcinogenic compounds, or cancer causing agents including benzene, chloroform, soot, styrene and formaldehyde, which can either be inhaled or absorbed through the skin at the scene of fire (Rowson, 2008). Fire stations are sometimes built on or adjacent to landfills that contain cancer-causing chemicals, hence the exposure of firefighters to carcinogenic compounds. Research from the University of Cincinnati, has it that the rates of testicular cancer are a hundred per cent higher and prostate cancer twenty-eight per cent higher among fire fighters (Rowson, 2008).

They have a high risk of brain cancer, colon cancer, bladder cancer, kidney cancer and Hodgkin's lymphoma as well. This can be explained in the sense <https://assignbuster.com/formal-research-proposal-of-cancer-in-the-fire-service/>

that the alleged spend a career facing toxic dangers, which is an occupational risk. However, brain tumors can be as a result of a particular type of radiation and exhaust emissions from fire trucks. A particular Mr. McCulloch argues that there are two major risk factors for brain cancer - one being family history, the other is exposure to ionizing radiation at the station. Due to the occupational risks faced by the fire fighters, a cancer support network has been formed by the cancer survivors who are willing to share their experiences, strengths and hope to those diagnosed with cancer.

A fire fighter cancer bill has been passed, dictating that the alleged should make a worker's compensation claim for lung cancer and similar smoke-causing diseases as long as they hadn't smoked cigarette in the last five years (House 81-27). The bill also covers public officials who contract the disease through the handling of hazardous chemicals. However, the bill has been opposed by many a house republican, arguing that it should not be presumed that fire fighters with cancer automatically got the disease through work related activity.

Wenke argues that those who drag hoses in to burning buildings and carry guns on duty should be well compensated, but consequently, opposes the bill for giving fire fighters guaranteed workman's compensation whether there were other factors or not. Rowson further argues that, when a firefighter dies from a cancer identified as occupational, their families need to be compensated appropriately. I highly advocate for support with financial donation, to try and raise the target as well as promotion of awareness geared towards reducing the present high death rates from prostate cancer.

I highly appreciate the positive contribution by Leighton Hospital Prostate Cancer Support Group in promoting cancer awareness.