



DEPT. COMM. NO. 284

HAWAII STATE LEGISLATURE

STATE CAPITOL  
415 SOUTH BERETANIA STREET  
HONOLULU, HAWAII 96813

January 10, 2017

The Honorable Ronald D. Kouchi  
President, State Senate  
State Capitol, Room 409  
Honolulu, HI 96813

The Honorable Joseph M. Souki  
Speaker, State House of Representatives  
State Capitol, Room 431  
Honolulu, HI 96813

Dear President Kouchi and Speaker Souki:

The enclosed Report of the HCR 32 Task Force is submitted to you on behalf of the Working Group that was convened during the interim months of 2016 pursuant to House Concurrent Resolution No. 32, Senate Draft 1, House Draft 1.

This Report was prepared by the Senate Majority Drafting Office (SMA) research attorney Chris Kobayashi and represents a comprehensive overview of the members, substance, presentation and materials considered by the Working Group.

Please note that the late submission of this Report was due to the deliberations of the Working Group as we wanted to ensure that all the requirements of the Working Group were met. We hope that this Report will help continue the conversation and discussion on how to better protect Firefighters in and out of the field.

Sincerely,

Senator Rosalyn H. Baker  
Chair  
Committee on Commerce,  
Consumer Protection and Health

Representative Della Au Belatti  
Chair  
Committee on Health

# **DEPT. COMM. NO. 284**

## **REPORT TO THE TWENTY-NINTH LEGISLATURE STATE OF HAWAII 2017**

**PURSUANT TO HOUSE CONCURRENT RESOLUTION NO. 32, H.D. 1, S.D. 1,  
REGULAR SESSION OF 2016, REQUESTING THE CONVENING OF A TASK  
FORCE TO EXAMINE CANCER IN THE FIREFIGHTER PROFESSION.**

Prepared by the  
Senate Majority Research Office  
December 2016

## **Background Information**

Firefighters are exposed to multiple contaminants through incident exposure as residential and vehicle fires release highly concentrated toxicants from plastics and synthetics, some of which are known or suspected to cause cancer. According to a 2005 study by the University of Cincinnati that analyzed decades of data from approximately 110,000 firefighters, firefighters have a higher risk than the general population of being diagnosed with cancer.

The following table from the University of Cincinnati study shows the percentage of increase in cancer incidence among firefighters above cancer incidence in the general population for various types of cancer:

Type of Cancer	Percentage of Risk Compared to General Population
Testicular Cancer	102%
Multiple Myeloma	53%
Non-Hodgkin's Lymphoma	51%
Skin Cancer	39%
Brain and Malignant Melanoma	32%
Rectal Cancer	29%
Prostate Cancer	28%
Buccal Cavity and Pharynx Cancer	24%
Stomach Cancer	22%
Colon Cancer	21%
Leukemia	14%

The University of Cincinnati researchers expressed further concern about the soot, considered a group-one carcinogen and top cancer-causing agent, that firefighters may have on their faces, hands, and under their gear. If not properly cleaned, soot may get absorbed into the body through the skin as the firefighter sweats and their pores open.<sup>1</sup>

Additionally, several states, such as Arizona, California, Nevada, North Dakota, and Virginia, have legislation that specifically mentions coverage of occupational diseases for firefighters due to the higher risks of contaminant exposure for firefighters.

### **H.C.R. No. 32, H.D. 1, S.D. 1, Regular Session of 2016**

House Concurrent Resolution No. 32, H.D. 1, S.D. 1, Regular Session of 2016, requested the convening of a task force to examine cancer in the firefighting profession. More specifically, the task force was further requested to examine the following:

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<sup>1</sup> Bach, John. Scientists Unveil Cancer Spike Among Firefighters. University of Cincinnati Magazine. April 2008. Last accessed on December 20, 2016, at <http://magazine.uc.edu/issues/0408/firefighters.html>.

- (1) Recommendations, if any, for revisions to state workers' compensation laws that expedite the delivery of workers' compensation benefits for firefighters diagnosed with cancer;
- (2) The percentages of cancer diagnoses in Hawaii for the general population compared to firefighters;
- (3) Estimated costs to the State and counties if there were to be an increase in workers' compensation benefits for firefighters diagnosed with cancer;
- (4) County fire departments' safety procedures and protocols for the prevention and reporting of firefighter exposure to toxicants; and
- (5) Amending or adopting administrative rules that can improve workers' compensation benefits for firefighters diagnosed with cancer.

### **Task Force Membership and Meetings**

Pursuant to House Concurrent Resolution No. 32, H.D. 1, S.D. 1, Regular Session of 2016, the task force included the following individuals or representatives from the following organizations:

City and County of Honolulu, Chief, Fire Department  
 City and County of Honolulu, Department of Human Resources  
 County of Hawaii, Chief, Fire Department  
 County of Hawaii, Department of Human Resources  
 County of Kauai, Chief, Fire Department  
 County of Kauai, Department of Personnel Services  
 County of Maui, Chief, Department of Fire and Public Safety  
 County of Maui, Department of Personnel Services  
 Department of Health, Chronic Disease Management and Control  
 Department of Health, Hawaii Comprehensive Cancer Control Coalition  
 Department of Human Resources Development, Employee Claims Division  
 Department of Labor and Industrial Relations, Disability Compensation Division  
 Employees' Retirement System  
 Employees' Retirement System, Claims Benefits Branch  
 Hawaii Employer-Union Health Benefits Trust Fund  
 Hawaii Employers' Mutual Insurance Company (health insurance industry representative)  
 Hawaii Fire Fighters Association  
 House Committee on Health  
 House Committee on Labor  
 Private attorney familiar with workers' compensation law  
 Senate Committee on Commerce, Consumer Protection, and Health  
 Senate Committee on Judiciary and Labor  
 State Fire Council

State Firefighters Cancer Support Group  
University of Hawaii Cancer Center

The task force utilized various subgroups to focus on specific issues and held three meetings on September 23, 2016; November 16, 2016; and December 16, 2016. Members were able to attend the meetings by teleconference.

**Findings**

I. Recommendations, if any, for revisions to state workers' compensation laws that expedite the delivery of workers' compensation benefits for firefighters diagnosed with cancer.

Because the task force recognized the increased incidence of cancers among firefighters when compared to the general population, the task force identified that the current system available for firefighters needs improvement through legislation. Establishing a more streamlined system for firefighters who are diagnosed with cancer will not only encourage more firefighters to seek the appropriate health care in a timely manner, but also relieve the other financial and emotional stresses that a firefighter and a firefighter's family may experience. The result of these discussions prompted the drafting of legislation for introduction in the 2017 Regular Session that will improve access for firefighters to comprehensive medical coverage for certain medical conditions, such as cancer, that are presumed to arise out of and in the course of employment.

A side discussion also arose about the stigma of the state's workers' compensation system and how some firefighters may not want to work through the systems and processes in place because of delays or other challenges. This is an issue that may have more to do with workplace culture than legislation. If firefighters are hesitant to go through the systems in place now, there is something that can be done to improve the process. As there are ways to improve and streamline government systems, including the workers' compensation system, communicating the options that are available in an open forum may help to encourage more firefighters to seek the proper health care options.

II. The percentages of cancer diagnoses in Hawaii for the general population compared to firefighters.

The Hawaii Medical Service Association (HMSA) conducted a study that estimated the Hawaii Fire Fighters Association cancer rates using a five-year average of cancer cases per thousand. The following data demonstrates the cancer incidence of members of the Hawaii Fire Fighters Association compared to the general HMSA member population:

Type of Cancer	Cancer Incidence of HIFA Members Compared to General Population
Leukemia	94% higher
Buccal and Pharynx Cancer	66% higher
Colon Cancer	23% higher
Prostate Cancer	21% higher
Brain and Malignant Melanoma	7% higher
Non-Hodgkin's Lymphoma	9% lower
Rectal Cancer	9% lower
Skin Cancer	10% lower
Multiple Myeloma	18% lower
Testicular Cancer	23% lower
Cancer of Bronchus; Lung	26% lower
Stomach Cancer	58% lower

While this data shows that there is higher incidence of certain cancers for firefighters in Hawaii, the data also demonstrates the need for better data collection at the state level. HMSA outlined the significant limitations to the study's methodology, such as the five-year period covering only about 2,000 firefighters, the data only including males, and a lack of comprehensive data subgroups by race, length of occupation, and other risk factors. It is also worth noting that other common cancers, such as pancreatic, liver, and thyroid cancers, were not included in the study.

III. Estimated costs to the State and counties if there were to be an increase in workers' compensation benefits for firefighters diagnosed with cancer.

Due to the limitations of reliable data related to firefighter cancer rates in Hawaii, it is difficult to provide any estimate as to the additional costs to the State and counties if there were to be an increase in workers' compensation benefits for firefighters diagnosed with cancer. However, the impact on overall workers' compensation system costs are expected to be negligible since the premium for paid firefighters represents a very low percentage of the total premium in the State.

In 2012, the National Council on Compensation Insurance, Inc. (NCCI) performed an analysis of Kentucky House Bill 326, which created a rebuttable presumption of compensability for full-time paid firefighters who suffer temporary or permanent disability or death resulting from cancer subject to certain criteria. The following table compiled by NCCI summarizes the expected increase in claims and changes in average costs per new case:

Estimated Impact on Paid Firefighter Benefit Costs	Low	High
Increase in compensable claims	+2.5%	+5.0%
Change in average cost of new claims	+0.0%	+150.0%
Total impact	+2.5%	+12.5%

Again, until data related to rates of cancer for firefighters in Hawaii can be collected, it is extremely difficult to offer an estimate on increase in costs. However, the analysis by NCCI does provide a general estimate for now and does state that the impact will most likely be negligible.

#### IV. County fire departments' safety procedures and protocols for the prevention and reporting of firefighter exposure to toxicants.

While it can be assumed that all county fire departments have safety procedures and protocols for the prevention and reporting of firefighter exposure to toxicants, only the Honolulu Fire Department and Maui Fire Department were able to submit their respective safety procedures and protocols by the deadline for this report.

The Honolulu Fire Department outlines its safety procedures and protocols related to routine, nonemergency hazard communication exposure in the Hazard Communication Program (HAZCOM) Standard Operating Guidelines (Chapter 5, Article 12 of the Honolulu Fire Department Policy and Procedures manual), which addresses one of the Department's Occupational Safety and Health Programs. Participation in HAZCOM is mandatory for all employees who are exposed to hazardous chemicals at the worksite. An annual refresher training is also required, which includes information on the prevention of hazardous chemicals exposure by using the proper personal protective equipment and container labeling and understanding the information provided in product labeling and the Safety Data Sheets. Furthermore, the Hazardous Material Standard Operating Guidelines, which cover the responsibilities and duties of members of the hazmat companies, is outlined in Chapter 5, Article 9 of the Honolulu Fire Department Policy and Procedures manual.

The Honolulu Fire Department also established a Respiratory Protection Program to educate Department personnel on the potential hazards they may be exposed to during the course of their daily activities or at an emergency incident, stressing the importance of using proper respiratory protection when necessary. The Respiratory Protection Program Standard Operating Guidelines cover a variety of issues, including the Department's and employee's responsibility for respiratory protection, training, and various other equipment procedures.

The Maui Fire Department outlines several safety procedures and protocols related to hazardous material exposure and safety protections. The following outlines several of the policies related to hazardous material exposure:

Safety Procedure	Purpose
Overall Approach for Hazmat Incidents (H.M. 400.01)	To provide an overall approach for response to hazardous materials incidents generally. Applies to all operational personnel.
Site Characterization (H.M. 401.01)	To provide a standardized, safe, effective, and complete approach for hazardous materials technicians engaged in identifying hazards and other relevant conditions prior to additional entry operations at a hazardous materials incident.
PPE for Hazmat Incidents (H.M. 400.06)	To guide personnel in the selection of personal protective equipment (PPE) at incidents involving the release or potential release of hazardous materials. Applies to all operational personnel, including hazardous materials technicians.
PPE Maintenance and Inspection (M.A. 100.27)	To provide guidelines to personnel for cleaning and inspection of personal protective clothing for structural firefighting.
Respiratory Protection (M.A. 101.09)	To ensure the Maui Fire Department and all personnel meet all approved standards for respiratory protection.

V. Amending or adopting administrative rules that can improve workers' compensation benefits for firefighters diagnosed with cancer.

Discussions by the task force prompted the drafting of legislation for introduction for the 2017 Regular Session rather than attempting to amend or adopt administrative rules related to workers' compensation benefits for firefighters diagnosed with cancer.

### **Conclusion**

The outcome of the task force identified three key aspects related to cancer and the firefighter profession.

First, based on national and limited statewide data and studies, firefighters have a higher incidence of certain types of cancer when compared to the general population.



Second, it is critical that more comprehensive data be collected on the state level that can provide a better picture of how high the risks of cancer are for firefighters in Hawaii. The University of Hawaii Cancer Center mentioned limitations of the data analyzed for the task force but also offered to calculate standardized incidence ratios if provided certain information. The Cancer Center would need data such as date of birth and social security number in order to perform confidential linkages to the State Tumor Registry and test the statistical significance of any linkages. Better data could provide additional insights into incidence of cancer among firefighters as compared to the general population and the likelihood that any increased incidence among firefighters is the result of certain factors such as employment as firefighters.

Third, there is a necessity for better legislation and awareness to assist firefighters who are diagnosed with cancer to receive the proper medical care in a timely and streamlined manner. The task force discussed recommendations such as:

- (1) Increasing awareness among firefighters of screenings in order to detect conditions earlier and begin any necessary treatment sooner, potentially saving lives;
- (2) Ensuring that female firefighters are included in efforts to increase screening awareness;
- (3) Formulating best practices regarding annual exams and recommended medical precautions for all fire departments; and
- (4) Identifying gaps in wellness programs and examining screening codes and claims for data trends.