

# RESULTS FROM THE BOSTON FIREFIGHTER CANCER SCREENING SURVEY

The Dana-Farber Cancer Institute and the Harvard T.H. Chan School of Public Health partnered with the Boston Fire Department to survey the firefighters who responded to the 2002 Sithe power plant fire in South Boston about their cancer screening practices. We greatly appreciate the efforts of all firefighters who completed our survey and contributed to research about firefighters' health.

## SURVEY PARTICIPANTS

### WHO TOOK THE SURVEY?

### CANCER SCREENING RECOMMENDATIONS

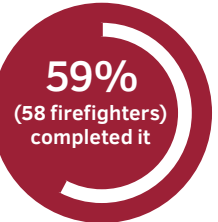
Professional and scientific organizations have developed recommendations for tests that identify cancer (cancer screening) for both the general public and groups of high-risk people, like firefighters.

One such organization is the **U.S. PREVENTIVE SERVICES TASK FORCE (USPSTF)**—an independent, volunteer panel of national experts in prevention and evidence-based medicine. Many doctors rely on the USPSTF recommendations for cancer screening for the general public.

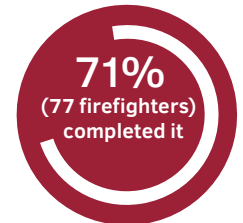
Another group that developed recommendations specifically for firefighters is the **INTERNATIONAL ASSOCIATION OF FIRE CHIEFS (IAFC)**. The IAFC recommendations are generally consistent with those of the medical consultant to the Boston Fire Department, Dr. Michael Hamrock of St. Elizabeth's Medical Center and Steward Medical Group.

Both sets of recommendations are included with the survey results.

98 retired firefighters received the survey



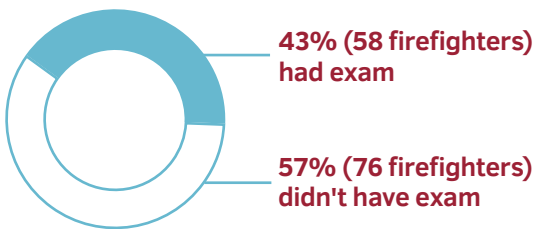
108 active firefighters received the survey



Results presented here are combined from all participants. Totals vary based on the recommended age requirement for each screening.

## SKIN CANCER

**SURVEY QUESTION:** How many firefighters had a full-body skin cancer exam in the last year?



**USPSTF RECOMMENDATIONS:** For adults with no symptoms who have not had premalignant or malignant skin lesions, there does not appear to be enough evidence to recommend skin cancer screening.

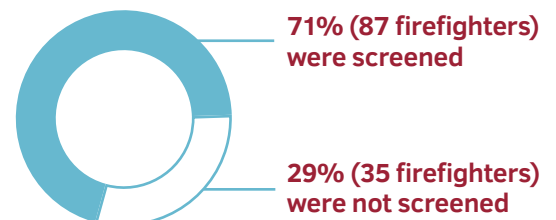
**IAFC RECOMMENDATIONS:** Annual head-to-toe skin exam and dermatology follow-up as needed.

## COLORECTAL CANCER

**SURVEY QUESTION:** How many firefighters 40+ years old had a colonoscopy (a medical exam of the large intestine or large bowel) or other appropriate colorectal screening test in the last 5 years?

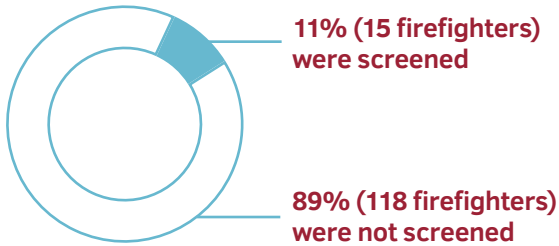
**USPSTF RECOMMENDATIONS:** For adults aged 50-75 years, colonoscopy every 10 years, or other appropriate screening tests (such as CT colonography or flexible sigmoidoscopy) every 5 years. Adults aged 76 to 85 should discuss with their doctor if the screening is necessary and take into account individual factors, such as overall health and prior screening history.

**IAFC RECOMMENDATIONS:** Colonoscopy or other appropriate colorectal cancer screening beginning at age 40 and repeating once every 5 years.



## LUNG CANCER

**SURVEY QUESTION:** How many firefighters were screened for lung cancer in the last year?



**USPSTF RECOMMENDATIONS:** For adults aged 55-80 with a history of smoking, annual screening for lung cancer with LDCT. Screening should stop once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have lung surgery.

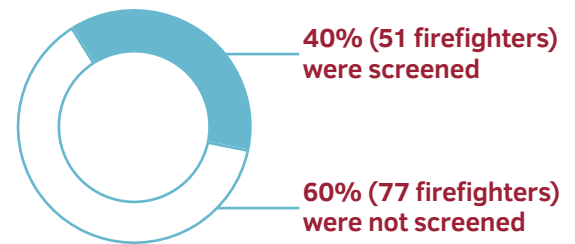
**IAFC RECOMMENDATIONS:** High-risk individuals should discuss with their doctors and consider low-dose computed tomography (LDCT: X-ray imaging that creates detailed pictures, or scans, of areas inside the body) for lung cancer screening.

## PROSTATE CANCER

**SURVEY QUESTION:** How many firefighters 40+ years old had a prostate-specific antigen (PSA)-based screening in the last year?

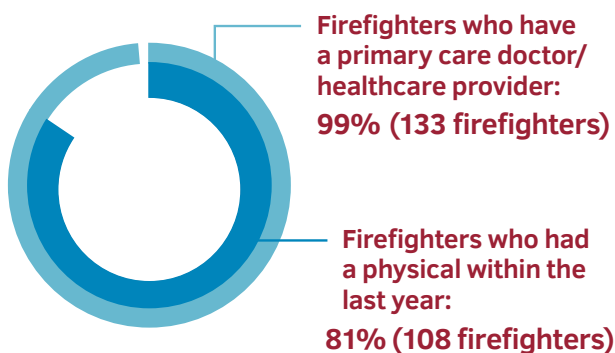
**USPSTF RECOMMENDATIONS:** Men aged 55-69 should discuss with their doctors the risks and benefits of PSA screening and make a decision based on individual factors. Men aged 70 years and above should not have PSA screening.

**IAFC RECOMMENDATIONS:** Annual prostate-specific antigen (PSA: a protein produced by the prostate that is often elevated in men with prostate cancer) test with digital rectal exam beginning at age 40, with a discussion of the risks and benefits of screening and treatment.



## ANNUAL PHYSICALS

Seeing a primary care doctor/healthcare provider annually is another key part of early cancer detection.



Annual physical exams should include a testicular exam and instructions on self-exam (for testicular cancer). A doctor may also recommend other tests, such as urine and blood tests.

## FIREFIGHTER CANCER RISK

Due to a wide range of exposures on the job, firefighters are at increased risk of several kinds of cancer, including lung, gastrointestinal system, kidney, skin melanoma, prostate, and multiple myeloma, when compared to the general public.

In a 2014 National Institute for Occupational Safety and Health (NIOSH) study of almost 30,000 firefighters from San Francisco, Chicago, and Philadelphia, firefighters had a 14% greater risk for overall cancer death, largely from cancers of the lung, gastrointestinal system, and kidney.

## WHY CANCER SCREENING

Cancer screening can help to identify cancer before a person has symptoms. Although not all cancers have adequate screening tests, our survey focused on cancers for which screening tests are useful.

Early detection may help identify cancers before a firefighter develops symptoms and may make it easier to treat or cure the cancer.

We strongly recommend that firefighters share this document with their primary care doctor/healthcare provider to determine which screening tests are right for them.

For more information about cancer screening, please contact your primary care doctor/healthcare provider. For information about the study, please contact the Director of the Firefighter Survey Research Team: Dr. Emily Sparer at Harvard T.H. Chan School of Public Health (617-384-9756 or [emily.sparer@mail.harvard.edu](mailto:emily.sparer@mail.harvard.edu)).