

Fire Fighter Cancer Study

Issue 5

Conducted in Partnership with the National Cancer Institute and the U.S. Fire Administration



Notes From the Study Director

Since we published our first paper last fall, we have made good progress! In case you missed it, a full text copy of the article and Frequently Asked Ouestions (FAQ) document can be found on our website www.cdc.gov/niosh/firefighters/ ffCancerStudy.html.

In the first phase of our study, we compared deaths and cancer diagnoses among career fire fighters to those found in the general population. We found certain cancers were modestly increased in our fire fighters. In May of this year, a study

of Nordic fire fighters published similar findings. The Nordic study examined cancer diagnoses among 16,422 male fire fighters from five Nordic countries. As in our study, the Nordic study found moderately increased cancer risk among fire fighters compared to the general population. Together, these two studies strengthen evidence of a relation between fire fighting exposures and cancer. More information on the Nordic study is available at http://oem.bmj.com/content/71/6/398.short?g=w oem current tab.

Since finishing phase I, we have focused our attention on the second phase of our study. Phase II compares the health effects among higher-exposed fire fighters to those less exposed. This is referred to as a "dose-response" analysis, with "dose" being an estimate of exposures to cancer-causing agents found in fire fighting. Fire fighter exposures are rarely measured. Therefore, we can't determine the actual or "true" dose. Instead, we estimate each fire fighter's exposure based on their employment history and other department records. For example, we can estimate exposure based on the total number of fire runs a fire fighter completed over his or her career. In this case, we assume that a fire fighter with a greater number of fire runs is also more likely to be exposed to cancer-causing agents. We are using fire runs and other indicators of exposure (e.g., time at fire, apparatus, rank) to best estimate exposure. To learn more about how we estimate fire fighters' exposures, please see Issue 2 of our newsletter, available on our website.

As of today, we have assembled the data needed to make our exposure estimates. We anticipate finishing the exposure assessment by fall and are hoping to publish the results from phase II early in 2015. If all goes according to plan, we anticipate sharing results from phase II in our next (and possibly final) newsletter. We also plan to prepare summary information for those fire fighters who were in our study. The materials will discuss findings from both phase I and II. This will be sent to the living current and former fire fighters included in our study, likely in spring 2015. Our materials will discuss the most important findings and will try to address questions we anticipate. Please email us at ffstudy@cdc.gov with questions you think fire fighters would like to have addressed and we will do our best to answer them in the information we mail out or post on our website.

Roll D. Daniel

Robert (Doug) Daniels, PhD Health Scientist Director, NIOSH Fire Fighter Cancer Study