Smoking Still Causes Large Proportion of Cancer Deaths in the United States

ATLANTA – December 9, 2014– A new American Cancer Society study finds that despite significant drops in smoking rates, cigarettes continue to cause about three in ten cancer deaths in the United States. The study, appearing in the Annals of Epidemiology, concludes that efforts to reduce smoking prevalence as rapidly as possible should be a top priority for the U.S. public health efforts to prevent cancer deaths.

More than 30 years ago, a groundbreaking analysis by famed British researchers, Richard Doll and Richard Peto, calculated that 30 percent of all cancer deaths in the United States were caused by smoking. Since that time, no new estimate of this percentage has been published in the scientific literature. During that same time, smoking rates have dropped, but new cancers have been added to the list of those established as caused by smoking and lung cancer death rates among female smokers have increased.

To provide a well-documented estimate for cigarette smoking and cancer mortality in the contemporary United States, researchers led by Eric J. Jacobs, PhD, looked at the most recent data on smoking rates from the National Health Interview Survey (NHIS) as well as data on the risks of smoking derived from epidemiologic studies, to estimate what is called the population attributable fraction (PAF), described as the proportion of cancer deaths in the population caused by smoking.

The authors found that the PAF for active cigarette smoking was 28.7% when estimated conservatively, including only deaths from the 12 cancers currently formally established as caused by smoking by the US Surgeon General. When estimated more comprehensively, including excess deaths from all cancers, the PAF was 31.7% percent. These estimates do not include additional potential cancer deaths from environmental tobacco smoke or other type of tobacco use such as cigars, pipes, or smokeless tobacco.

The authors say despite important declines in smoking prevalence, the PAF for smoking and cancer mortality estimated for 2010 is similar to the 30% estimated by Doll and Peto more than 30 years ago. But that does not indicate that declines in smoking rates have not made important contributions to reducing cancer mortality. Rather, other factors have contributed to increasing the PAF, including the addition of new cancers to the list of those counted as caused by smoking, increases over time in death rates from lung cancer among female smokers, and progress in reducing deaths from cancer caused by factors other than smoking.

“Our results indicate that cigarette smoking causes about three in 10 cancer deaths in the contemporary United States. Reducing smoking prevalence as rapidly as possible should be a top priority for US public health efforts to prevent future cancer deaths.”

Article: What proportion of cancer deaths in the contemporary United States is attributable to cigarette smoking? Eric J. Jacobs, PhD, Christina C. Newton, MSPH, Brian D. Carter, MPH, Diane Feskanich, ScD, Neal D. Freedman, PhD, Ross L. Prentice, PhD, W. Dana Flanders, MD, ScD DOI: http://dx.doi.org/10.1016/j.annepidem.2014.11.008