

What proportion of cancer deaths are attributable to smoking around the US?

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The proportion of cancer deaths attributable to cigarette smoking varied across the United States but was highest in the South, where nearly 40 percent of cancer deaths in men were estimated to be connected to smoking in some states, according to a new article published online by *JAMA Internal Medicine*.

There are still 40 million current adult cigarette smokers in the U.S. and smoking remains the largest preventable cause of death from cancer and other diseases. Cigarette smoking accounted for an estimated 28.7 percent of all cancer deaths in U.S. adults 35 and older in 2010 but there are no such estimates by states.

Joannie Lortet-Tieulent, M.Sc., of the American Cancer Society, Atlanta, and coauthors estimated the population-attributable fraction of cancer deaths due to cigarette smoking using relative risks for 12 smoking-related cancers and state-specific [smoking prevalence](#) data from the Behavioral Risk Factor Surveillance System. The study included each U.S. state and the District of Columbia.

The authors estimate:

- 167,133 cancer deaths in the U.S. in 2014 (28.6 percent of all cancer deaths) were attributable to cigarette smoking.
- In men, the proportion of cancer deaths attributable to smoking ranged from a low of 21.8 percent in Utah to a high of 39.5 percent in Arkansas, but was at least about 30 percent in every state except Utah.
- For men, the estimated proportion of smoking-attributable deaths was nearly 40 percent in Arkansas (39.5 percent), Tennessee (38.5 percent), Louisiana (38.5 percent), Kentucky (38.2 percent) and West Virginia (38.2 percent).
- In women, the proportion ranged from 11.1 percent in Utah to 29 percent in Kentucky and was at least 20 percent in all states except Utah, California and Hawaii.
- Many of the states with the highest proportion of smoking-attributable cancer deaths were in the South, including 9 of the top 10 ranked states for men and 6 of the top 10 ranked states for women for proportion of smoking-attributable cancer deaths.

The authors explain the higher smoking-attributable cancer mortality in the South is likely due to its higher historic smoking prevalence, which has prevailed in large measure because of weaker tobacco control policies and programs. Some of the least restrictive public smoking policies and most affordable cigarettes are found in the South, the study notes.

Higher smoking-attributable cancer mortality in Southern states also may be due in part to disproportionately high levels of low socioeconomic status, which is associated with higher smoking prevalence. Racial differences in smoking prevalence and population distribution also may account for some of the variability across states,

according to the article.

The authors suggest their study likely underestimated death attributable to tobacco use for a number of reasons, including that only 12 cancers were included. Also, self-reported data are known to underestimate smoking prevalence.

"Increasing tobacco control funding, implementing innovative new strategies, and strengthening [tobacco control policies](#) and programs, federally and in all states and localities, might further increase smoking cessation, decrease initiation and reduce the future burden of smoking-related cancers," the study concludes.

More information: *JAMA Intern Med.* Published online October 17, 2016. [DOI: 10.1001/jamainternmed.2016.6530](#)

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