

## Only 28% Know Lung Cancer Is the Leading Cause of Cancer Deaths

### 84% of Americans Know Smoking Increases Cancer Risk

Over the past several decades, significant progress has been made in reducing overall smoking rates and tobacco-related diseases. Despite these successes, there remain demographic and geographic disparities in smoking prevalence, tobacco-related health outcomes, and knowledge about lung cancer risk factors and mortality.

Much cancer prevention research has demonstrated that knowledge is a central component of effective health promotion, and that gaps in knowledge (e.g., by age, socioeconomic status, geographic region, or race/ethnicity) can create or exacerbate health disparities. While accurate knowledge isn't sufficient to affect behavior change, a baseline of knowledge and awareness is fundamental to the development of attitudes and intentions toward positive, health-enhancing behaviors.

The vast majority of Americans (84%) have received the message that smoking increases cancer risk, and there appears to be only some variation in that knowledge by demographic characteristics or by geographic region. Although lung cancer is the number one cancer killer in the U.S., less than one-third of Americans report that lung cancer is the leading cause of cancer deaths each year. Moreover, differences are pronounced by geographic region, with only 20% of adults in some areas of the country knowing that lung cancer is responsible for more deaths each year than other cancers such as breast, colon, or prostate.

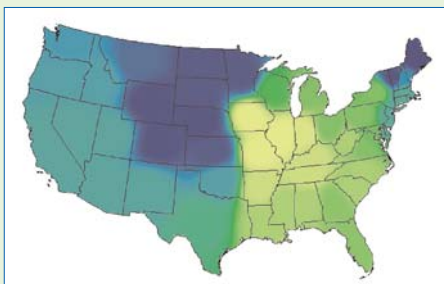
In this *HINTS Brief*, we explore demographic and geographic factors associated with accurate knowledge about lung cancer mortality, risk factors, and the negative effects of tobacco use.

#### Geographic Distribution of Smoking and Lung Cancer Knowledge

U.S. Population Percentages, HINTS 2003

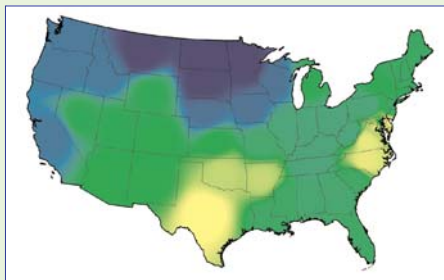
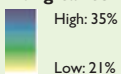
Does Smoking Increase Chances of Cancer?

Percent responding "a lot"



Which Type of Cancer Do You Think Will Cause the Most Deaths this Year in the U.S.?

Percent responding "lung cancer"



## Quick Facts

- Smoking is the leading cause of preventable death in the U.S.
- Tobacco use and tobacco-related diseases are more prevalent in certain geographic areas, and among certain racial/ethnic populations and people with low socioeconomic status.
- Knowledge about the health consequences of tobacco is not evenly distributed. There are social and geographic differences in knowledge about lung cancer risk factors and mortality.
- Among smokers, disadvantaged groups are more likely to endorse myths and misinformation about the negative effects of tobacco.

## Among Smokers, Myths Are Persistent and Pronounced

*Gender Race and Income Associated with Myth Endorsement*

While a majority of current smokers know that smoking cessation is a cancer prevention strategy, they also are prone to endorse some smoking-related myths. In a HINTS study, researchers assessed the extent to which current and former smokers agreed with myths about reversing the negative effects of smoking, and how those inaccurate beliefs varied by sociodemographic characteristics.

When current and former smokers were asked whether they believed that exercise could undo most of the negative effects of smoking, males were more likely than females, and African-Americans and Hispanics were more likely than Whites, to endorse the myth. Those with higher incomes generally reported more accurate knowledge, being more likely to disagree with the exercise myth compared to people who earn less than \$25,000 per year.

When asked whether they believed that vitamins could undo most of the negative effects of smoking, similar patterns emerged, with males, African-Americans, Hispanics, and those with incomes less than \$25,000 per year being more likely to endorse the myth than females, Whites, and those with higher incomes, respectively. College graduates, compared to people with less than a high school education, were more likely to hold accurate knowledge, disagreeing with the vitamin myth.

**In this HINTS Brief, we explore factors associated with accurate knowledge about tobacco.**

## Cancer Prevention Knowledge: Differences by Gender, Income, Education, and Race/Ethnicity

When asked if there is anything people can do to reduce their chances of getting cancer, on average, 60% of Americans say “quit smoking.” That answer varies, however, by some sociodemographic characteristics. For example, males are significantly more likely than females to report smoking cessation as a cancer prevention strategy. Here we report other factors associated with cancer prevention knowledge, as identified in a recent publication using HINTS 2003 data.

### Income & Education

While 70% of college graduates report that quitting smoking can reduce a person's risk of getting cancer, only 51% of people with less than a high school education believe this to be true.

This knowledge gap is apparent across levels of income as well, with about 70% of people who make more than \$75,000 per year reporting that quitting smoking reduces cancer risk, compared to about 54% of people with an income of less than \$25,000 per year.

People with lower incomes and lower levels of education also are more likely to say that there is nothing people can do to reduce their chances of getting cancer; 25% of people who earn less than \$25,000 per year believe this to be true, as do 30% of people with less than a high school education.

### Race/Ethnicity

While 63% of Whites report that quitting smoking reduces cancer risk, 54% of African-Americans and 49% of Hispanics report that smoking cessation is a cancer prevention strategy.

Twenty-five percent of Hispanics inaccurately believe that there is nothing people can do to reduce their chances of getting cancer, while 18% of African-Americans and 14% of Whites believe this to be true.

## How Can This Inform Your Work?

Tobacco use remains the leading cause of preventable death in the U.S. Smoking prevalence and knowledge about the negative effects of tobacco use are not patterned evenly in the population. Health communication practitioners have the opportunity to address the persistent demographic and geographic differences that contribute to cancer-related knowledge gaps and health disparities by targeting tobacco education and cessation programs where existing gaps reflect the greatest need.

The geographic distribution of lower levels of knowledge about smoking and lung cancer mortality tracks closely with the geographic distribution of higher mortality rates from cancers of the lung, trachea, bronchus, and pleura. States ranked as having the highest total tobacco-growing acreage (NC, KY, TN, SC, and VA)

also have the highest rates of adult smoking in the U.S. Opportunities exist for regional programming.

A majority of smokers identify smoking cessation as a cancer prevention strategy. Despite possessing accurate knowledge in this area, socially disadvantaged smokers are more likely to endorse myths about the ability of exercise and vitamins to reverse the negative health effects of tobacco. Efforts are needed to dispel myths among smokers, and especially smokers who are male, African-American, Hispanic, or have low levels of income or education.

Socially disadvantaged groups continue to fare worse than non-disadvantaged groups on indices of knowledge about cancer prevention, risk factors, and mortality. Targeted efforts are essential to bridge knowledge gaps and eliminate disparities in cancer outcomes.

### About HINTS

<http://hints.cancer.gov>

The National Cancer Institute (NCI) fielded the first Health Information National Trends Survey (HINTS) in 2002 and 2003, surveying 6,369 Americans. Subsequent surveys followed in 2005 and 2007. HINTS was created to monitor changes in the rapidly evolving field of health communication. The survey data can be used to understand how adults 18 years and older use different communication channels to obtain health information for themselves and their loved ones, and to create more effective health communication strategies across populations.

*HINTS Briefs* provide a snapshot of noteworthy, data-driven research findings. They introduce population-level estimates for specific questions in the survey and summarize significant research findings that are a result of analyzing how certain demographic characteristics influence specific outcomes. Many *Briefs* summarize research findings from recent peer-reviewed journal articles using HINTS.

## For More Information on Cancer

- Call the NCI Cancer Information Service at 1-800-4-CANCER (1-800-422-6237)
- Visit <http://cancer.gov>
- Order NCI publications at <https://cissecure.nci.nih.gov/ncipubs/>

## References Used in This HINTS Brief

- Finney Rutten LJ, Augustson EM, Moser RP, Burke Beckjord E, Hesse BW. Smoking knowledge and behavior in the U.S.: sociodemographic, smoking status, and geographic patterns. *Nicotine and Tobacco Research*. (In Press).
- Davis RM, Gilpin EA, Loken B, Viswanath K, Wakefield MA, (Eds.). (2008). *The Role of the Media in Promoting and Reducing Tobacco Use*. Bethesda, MD: U.S. Department of Health and Human Services. NIH Pub. No. 07-6242. June 2008.

