Health Information National Trends Survey
hints brief
http://hints.cancer.gov
NUMBER 13

Americans Often Misunderstand the Extent to Which Colon, Skin, and Lung Cancers are Treatable and Beatable

"State-of-the-science" evidence in cancer refers to consensus among researchers and specialists regarding the most effective ways to prevent, screen for, and treat the disease, as well as rates of survival among those diagnosed. Because a person's understanding of cancer prevention, screening, and survival may influence their health behaviors and health outcomes, it is important for cancer researchers and health communication practitioners to promote state-of-the-science evidence in cancer control, in order to reduce confusion, increase knowledge, and promote evidence-based preventive action.

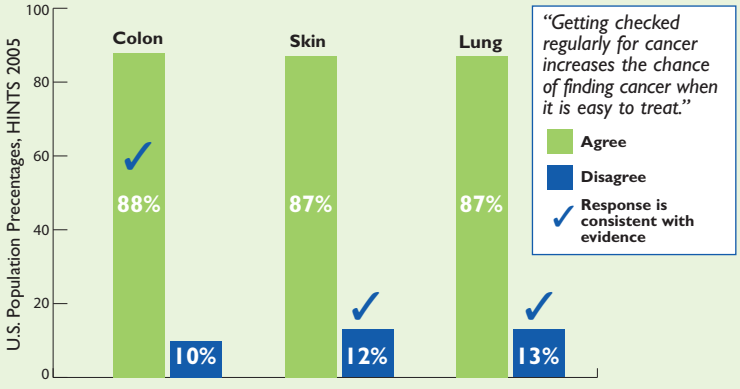
Data from HINTS 2005 show that Americans possess differing levels of accurate knowledge about the extent to which colon, skin, and lung cancers are preventable, treatable, and beatable. While most Americans have gotten the message that these cancers can be prevented, knowledge is not always consistent with state-of-the-science evidence when it comes to screening and survival.

Approximately 90% of HINTS respondents believe "getting checked regularly" for lung and skin cancers increases the chance of finding those cancers at an early, treatable stage. This is not consistent with current evidence, as public health authorities have inadequate evidence to recommend for or against common lung cancer detection modalities and total-body skin exams as a way to screen for lung and skin cancers, respectively.

Approximately 80% of HINTS respondents overestimate the survival rate for lung cancer, inaccurately assuming that most people diagnosed with lung cancer will survive at least 5 years, when the odds are actually much lower, with a 15% combined relative survival rate.

In this HINTS *Brief*, we compare public perceptions of cancer prevention, screening, and survival with state-of-the-science evidence for colon, skin, and lung cancers.

Consistency with State-of-the-Science Screening Recommendations for Colon, Skin, and Lung Cancers



Quick Facts

- The risk of developing colon cancer can be reduced with physical activity, diet, and removal of adenomatous polyps. Experts strongly recommend colorectal cancer screening for men and women 50 and older with a fecal occult blood test (FOBT), or with sigmoidoscopy alone or in combination with FOBT. Colon cancer is highly treatable and often curable.
- The risk of developing skin cancer can be reduced by wearing sunscreen and reducing exposure to UV rays. Experts do not recommend total-body skin exams to screen for cutaneous melanoma, basal cell skin cancer, or squamous cell skin cancer, as there is inadequate evidence to suggest that population-wide screening would be effective. Basal and squamous cell skin cancers are very common and highly curable, and the combined survival rate for melanoma is 82%.
- The risk of developing lung cancer can be reduced by not smoking and by avoiding secondhand smoke. Experts do not recommend lung cancer screening by low-dose computerized tomography, chest x-ray, or sputum cytology, as there is inadequate evidence to suggest that these screening modalities save lives. Survival rates for lung cancer are very low.

Public Knowledge of Preventing, Detecting, and Surviving Cancer

Consistency of public knowledge with state-of-the-science evidence in cancer prevention, detection, and survival varies by type of cancer, levels of evidence for screening techniques, and sociodemographic characteristics.

A recent study using HINTS 2005 data found that overall, public understanding of cancer prevention, detection, and survival is greater for cancers and screening techniques for which there is ample evidence and information upon which to make judgments and decisions. But when messages from the scientific community are inconsistent, or when evidence is unavailable for the best ways to screen for certain cancers, people may overextend their knowledge about more common cancers (such as breast cancer) to those cancers with which they are less familiar.

In this HINTS* Brief, *we compare public perceptions of cancer prevention, screening, and survival with state-of-the-science evidence.

Public Understanding of Colon, Skin, and Lung Cancer Survival

Responses Consistent with State-of-the-Science Evidence Vary by Age, Education, and Race/Ethnicity

Colon Cancer

Most Americans (66%) know that 50% to 75% of people who develop colon cancer will survive at least 5 years. (The combined relative survival rate for colorectal cancer is 64%.) Education and race/ethnicity are associated with having knowledge that is consistent with the state-of-the-science evidence. Compared to those with less than a high school education, those with some college or a college degree are more than twice as likely to hold accurate perceptions of colon cancer survival. Compared with non-Hispanic Whites, Hispanics and non-Hispanic Blacks are less likely to be familiar with colon cancer's high survival rate.

Skin Cancer

Most Americans (64%) know that the majority of people diagnosed with skin cancer will survive at least 5 years. (The combined relative survival rate for skin cancer is 82%.) Age, education, and race are associated with knowledge of state-of-the-science evidence for skin cancer survival. People in their 40s, 50s, and 60s are significantly more likely than those aged 18–29 to be familiar with skin cancer survival estimates. Moreover, college graduates are more than twice as likely to respond consistently with survival rates for skin cancer. Hispanics and non-Hispanic Blacks are less likely than non-Hispanic Whites to be familiar with survival rates for skin cancer.

Lung Cancer

Few (17%) Americans are aware that only a small minority of individuals diagnosed with lung cancer will survive 5 years beyond diagnosis. (The 5-year combined relative survival rate for lung cancer is 15%.) This lack of knowledge does not vary by sociodemographic characteristics, indicating that the lack of knowledge about successful treatment for lung cancer is widespread.

How Can This Inform Your Work?

State-of-the-science evidence is complex and often difficult to understand. When messages from the scientific community appear to be conflicting, or when evidence is missing or inadequate to make recommendations for appropriate screening modalities, people may extend or substitute their knowledge of more familiar cancer types (such as breast cancer) onto cancers with which they are less familiar.

Most Americans have gotten the message that colon, skin, and lung cancers are preventable. However, the cancer control community could do a better job of educating the public about which screening modalities have been proven effective for specific cancers, and about the varying rates of survival for common cancers. Increasing accurate knowledge could provide people with higher levels of perceived control over their health and influence positive health behaviors and health outcomes. The following are examples of objectives for educating the public about cancer:

- Promote prevention for those cancers associated with behavioral risk factors (e.g., smoking, unprotected sun exposure, unhealthy diet).
- Promote screening for colon cancer for women and men aged 50 and older.
- Enhance perceived control by emphasizing high survival rates for most colon and skin cancers.
- Decrease confusion about screening and effective treatment for lung cancer, in order to shift the emphasis to prevention until there are evidence-based detection strategies and effective treatments.

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 (5,586 Americans surveyed) and 2008 (7,674 Americans surveyed). 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 data.

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, Hesse BW, Moser RP, McCaul KD, Rothman AJ. Public perceptions of cancer prevention, screening, and survival: comparison with state-of-the-science evidence for colon, skin, and lung cancer. J Cancer Ed. 2009; 24(1):40–8.

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