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Lung Health Policy Brief

Science Saves Lives

Sound, peer-reviewed research informs the public and forms the foundation of lifesaving policies.

Federal agencies must continue to be informed by, disseminate and fund scientific research.

Federal Agencies Must Continue to Make Decisions Based on Peer-Reviewed Science.

- Peer-reviewed research from private organizations, public charities, research universities, corporations, federal agencies, and elsewhere is critical to informing policies that protect health, including at the Centers for Disease Control and Prevention (CDC), the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the National Institutes of Health (NIH) and other federal agencies.

- Federal agencies have a long history of using sound science to save lives.
    - Reports from the U.S. Surgeon General highlight key health issues for Americans based on the weight of scientific evidence. The first Surgeon General's report in 1964 was the first federal government report linking smoking with specific diseases and formed the foundation for cutting the smoking rate in half by 2014. Subsequent reports have broken ground by educating the public about the dangers of secondhand smoke and about e-cigarettes and youth.

    - The U.S. Preventive Services Task Force, an independent panel of national medical experts appointed by HHS' Agency for Healthcare Research and Quality, reviews peer-reviewed evidence and evaluates preventive services to help clinicians and patients make decisions about their care. The USPSTF's recommendations for lung cancer screening are projected to save over 30,000 lives if everyone who is at high risk is screened for lung cancer.

    - Under the Clean Air Act, EPA is required to set national air pollution standards based solely on what science shows is necessary to protect health. EPA regularly reevaluates the latest research and updates air pollution standards accordingly, leading to a 73 percent drop in aggregate emissions of these pollutants between 1970 and 2017.

- Scientific research undergoes a long-established, transparent review process. Research proposals, designs, and findings are all peer-reviewed. Once published, the findings are further examined and debated by other scientists and by the public. Scientists continue to consider and incorporate the findings as newer studies are published, particularly during large assessments of the whole body of research on a topic, which federal agencies regularly undertake.

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Public Access to Scientific Information is Vital.

- The public must continue to have access to scientific information that enables them to understand potential treatments for disease or to recognize threats to their health and take steps to protect themselves.

- The public not only has a right to know, but a *need* to know. For example, accurate air quality data allows individuals with asthma to proactively limit their activity outdoors on a day with high levels of outdoor air pollution.

Patient Privacy Must Continue to Be Protected.

- Researchers who evaluate the health impacts of air pollution or tobacco must collect sensitive data from participants such as family medical history, geographic location, and personal medical history. Scientists and institutions build in systems to protect this information while still maintaining open access to the collective data.

- The federal government must also protect patient privacy by ensuring that patients' sensitive information shared during research studies is never made public – while still ensuring that studies based on these data can inform policy.

Public Funding of Science is Essential.

- The federal government has a long and successful history of funding sound science that has helped protect health and save lives. For example, NIH's National Cancer Institute's National Lung Cancer Screening Trial found that lung cancer screening of high-risk patients reduced mortality by 20 percent.

- Public efforts to fund scientific research must continue to ensure that public health is protected, as the Clean Air Act and Tobacco Control Act require. Those core efforts must include research investigating:
    - Human health impacts of air pollution and climate change;
    - Best practices for mitigating health risks due to climate change;
    - The public health impact of tobacco products;
    - Epidemiological surveillance data regarding the prevalence and severity of diseases such as asthma, lung cancer, influenza, COPD and pneumonia;
    - Effective measures to reduce pollution and prevent and treat diseases; and
    - Data collection and evaluation of air quality and pollution levels in communities across the nation.

For more information

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