



American Cancer Society's vision is for all people to attain the highest level of health. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and care disparities. Even though cancer death rates have decreased by 26% from 1991 to 2015, not all Americans have benefited equally from advances in prevention, early detection, and treatments that persist in incidence, survival, morbidity, and mortality.

Our mission is to expand access to care, increase prevention and early detection, and support more research critical to help improve cancer-related outcomes for all US population groups and worldwide. The American Cancer Society (ACS) is committed to achieving health equity and eliminating cancer disparities because we believe no one should be disadvantaged in their fight against cancer because of how much money they make; the color of their skin; their sex, sexual orientation, or gender identity; their physical or mental abilities; **or where they live**. We are **determined to win together** in every community. Our **integrity, courage, and compassion** have led us to prioritize marginalized communities and value **diversity** through inclusion and respect in the fight against cancer.

Health Equity & The Environment

The American Cancer Society editorial and medical team reports that several national and international agencies study substances in the environment to determine if they can cause cancer. American Cancer Society looks to these organizations to evaluate the risks based on evidence from laboratory, animal, and human research studies.

A substance that causes cancer or helps cancer grow is called a carcinogen. Many of these expert agencies have classified diesel exhaust as carcinogenic, based largely on the possible link to lung cancer. The International Agency for Research on Cancer (IARC) is part of the World Health Organization (WHO). Its major goal is to identify causes of cancer. IARC classifies diesel engine exhaust as "carcinogenic to humans," based on sufficient evidence that it is linked to an increased risk of lung cancer. IARC also notes that there is "some evidence of a positive association" between diesel exhaust and bladder cancer. The National Toxicology Program (NTP) is formed from parts of several different US government agencies, including the National Institutes of Health (NIH), the Centers for Disease Control and Prevention (CDC), and the Food and Drug Administration (FDA). The NTP has classified exposure to diesel exhaust particulates as "reasonably anticipated to be a human carcinogen," based on limited evidence from studies in humans (mainly linking it to lung cancer) and supporting evidence from lab studies. The US Environmental Protection Agency (EPA) maintains the Integrated Risk Information System (IRIS), an electronic database that contains information on human health effects from exposure to various substances in the environment. The EPA classifies diesel exhaust as "likely to be carcinogenic to humans." The National Institute for Occupational Safety and Health (NIOSH) is part of the CDC that studies exposures in the workplace. NIOSH has determined that diesel exhaust is a "potential occupational carcinogen." (further information via www.cancer.org)

REPORT: Outdoor air pollution and cancer: An overview of the current evidence and public health recommendations

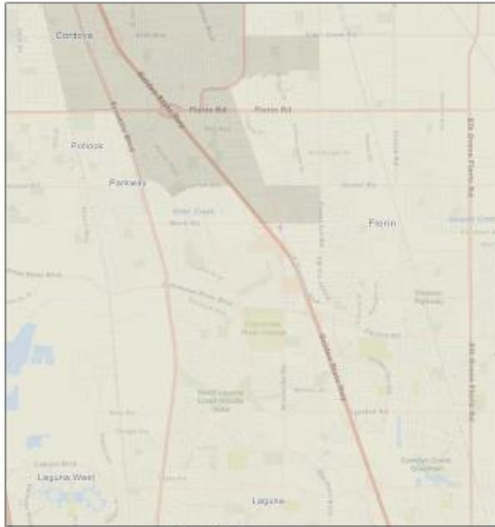
Outdoor air pollution is a major contributor to the burden of disease worldwide. Most of the global population resides in places where air pollution levels, because of emissions from industry, power generation, transportation, and domestic burning, considerably exceed the World Health Organization's health-based air-quality guidelines. Outdoor air pollution poses an urgent worldwide public health challenge because it is ubiquitous and has numerous serious adverse human health effects, including cancer. Currently, there is substantial evidence from studies of humans and experimental animals as well as mechanistic evidence to support a causal link between outdoor (ambient) air pollution, and especially particulate matter (PM) in outdoor air, with lung cancer incidence and mortality. It is estimated that hundreds of thousands of lung cancer deaths annually worldwide are attributable to PM air pollution. Epidemiological evidence on outdoor air pollution and the risk of other types of cancer, such as bladder cancer or breast cancer, is more limited. Outdoor air pollution may also be associated with poorer cancer survival, although further research is needed. This report presents an overview of outdoor air pollutants, sources, and global levels, as well as a description of epidemiological evidence linking outdoor air pollution with cancer incidence and mortality. Biological mechanisms of air pollution-derived carcinogenesis are also described. This report concludes by summarizing public health/policy recommendations, including multilevel interventions aimed

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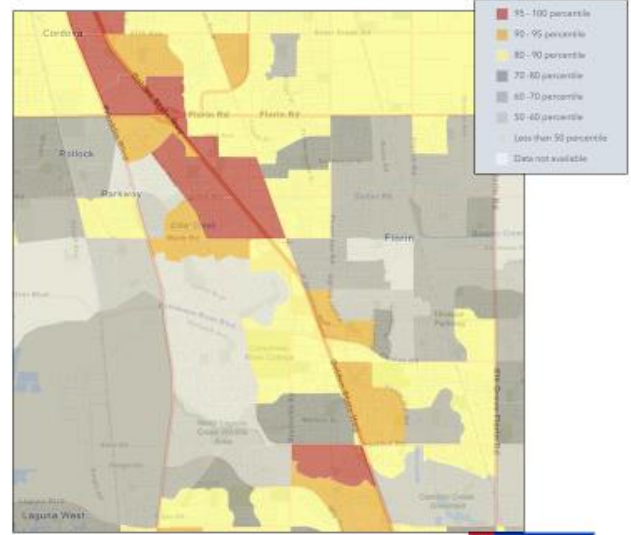
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at individual, community, and regional scales. Specific roles for medical and health care communities with regard to prevention and advocacy and recommendations for further research are also described. [CONTINUED](#)

Air pollution is a potential driver of health disparities



Diesel Exposure



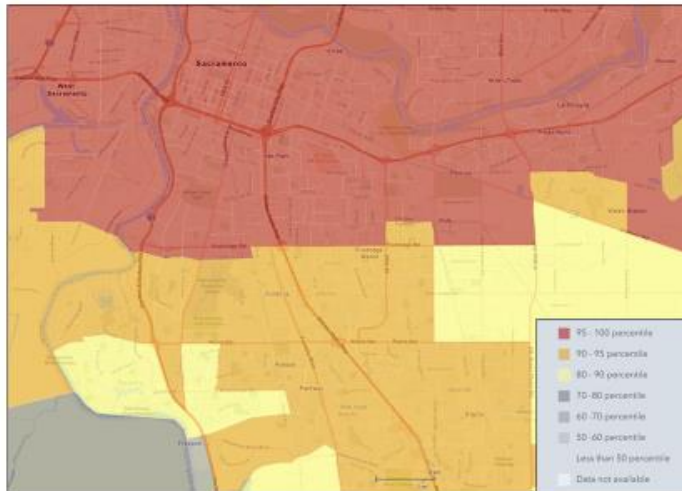
Proximity to Traffic



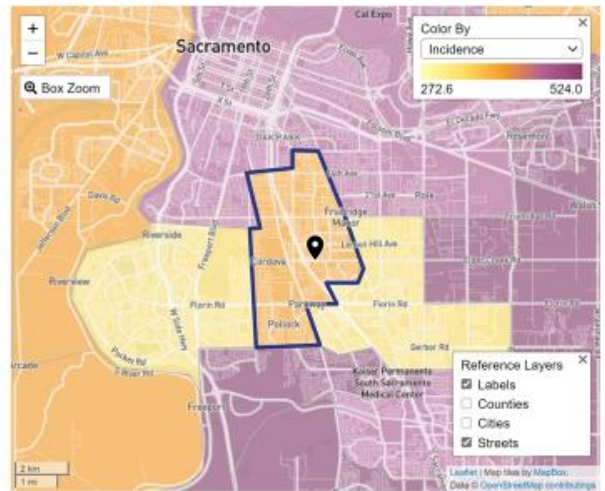
<https://ejscreen.epa.gov/mapper/>

*AB 617 Zone

South Sacramento Cancer Incidence Rate vs Diesel



Air Toxics Exposure



Cancer Incidence Rate Map



<https://ejscreen.epa.gov/mapper/>

South Sacramento - Air Toxics Respiratory Hazard Index (NATA Respiratory HI)

<https://www.californiahealthmaps.org>

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What Causes Cancer?

<https://www.cancer.org/cancer/cancer-causes.html>

Cancer is a complex group of diseases with many possible causes. In this section you can learn more about the known and possible causes of cancer, as well as general information about carcinogens and how genetics play a role in cancer.

Known and Probable Human Carcinogens

<https://www.cancer.org/cancer/cancer-causes/general-info/known-and-probable-human-carcinogens.html>

In general, the American Cancer Society does not determine if something causes cancer (that is, if it is a carcinogen). Instead, we rely on the determinations of other respected agencies, such as the International Agency for Research on Cancer (IARC) and the US National Toxicology Program (NTP).

Related Readings:

Articles

Air Pollution from Vehicles in California: People of Color Bear the Biggest Burden

<https://blog.ucusa.org/dave-reichmuth/pollution-california-people-of-color-bear-burden>

In the Northeast, Communities of Color Breathe 66% More Air Pollution from Vehicles

<https://www.ucusa.org/about/news/communities-color-breathe-66-more-air-pollution-vehicles>

Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status

<https://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2017.304297>

New Research Links Air Pollution to Higher Coronavirus Death Rates

<https://www.nytimes.com/2020/04/07/climate/air-pollution-coronavirus-covid.html>



<https://healthyairalliance.org/>

Healthy Air Alliance, a group of advocates who believes there are ways we can immediately reduce air pollution, and that discussion of actionable solutions must include cleaner fuel choices that will immediately lower harmful emissions, improve health in our most vulnerable communities, and make cleaner and more affordable transportation solutions available to all.

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