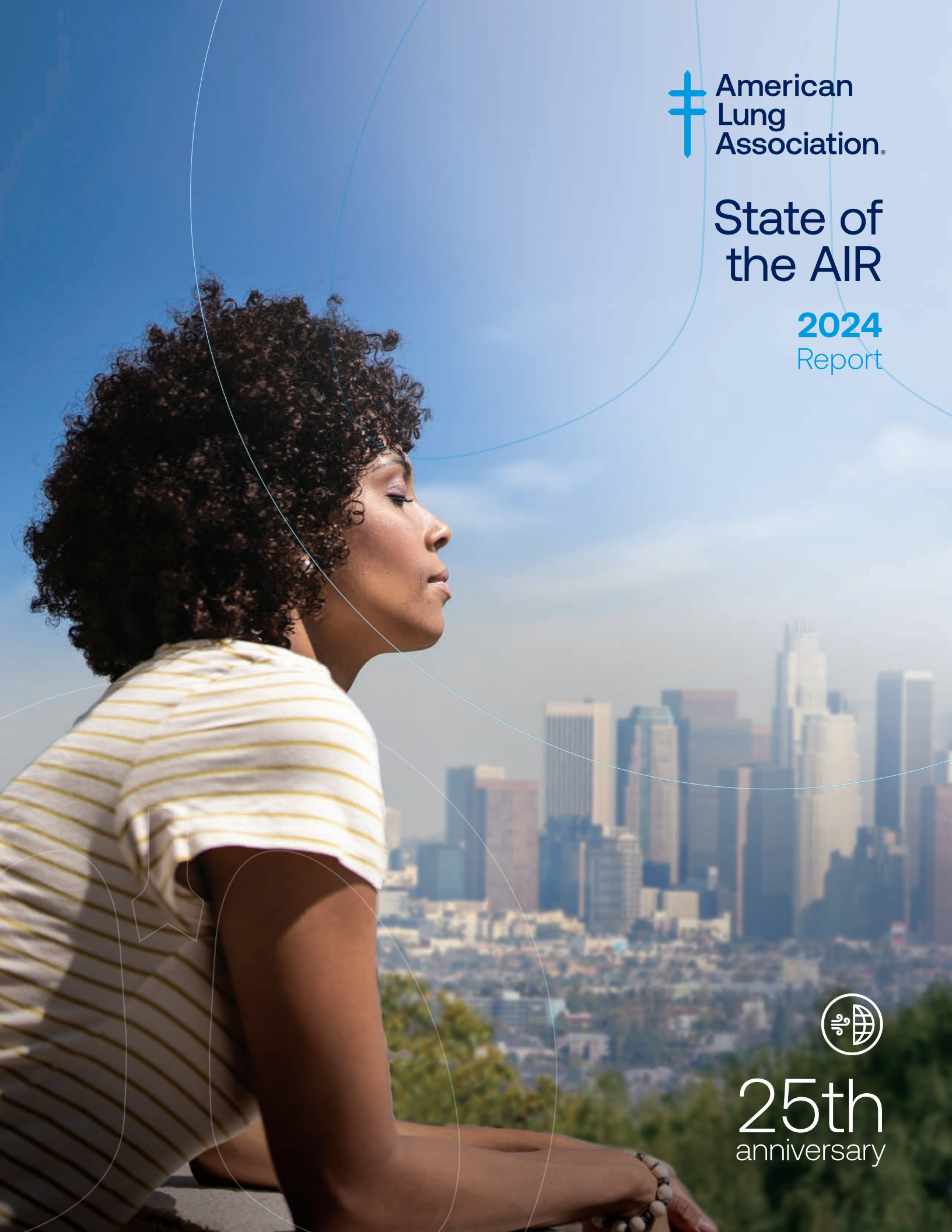

American Lung Association®

State of the AIR

2024 Report

25th anniversary

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"State of the Air" 2024 would not have been possible but for the twenty years of inspiration, dedication and hard work of the late Janice E. Nolen. We still miss her every day.

The American Lung Association assumes sole responsibility for the content of "State of the Air" 2024.

American Lung Association
55 W. Wacker Drive, Suite 1150
Chicago, IL 60601

Advocacy Office
1331 Pennsylvania Avenue, NW, Suite 1425 North
Washington, DC 20004
(800) 586-4872

Lung.org/sota

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Why "State of the Air"?

The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set health-based limits, called National Ambient Air Quality Standards (NAAQS), for six dangerous outdoor air pollutants: particulate matter, ozone, nitrogen oxides, sulfur dioxide, carbon monoxide and lead. "State of the Air" looks at two of the most widespread and dangerous pollutants from this group, fine particulate matter and ozone.

The NAAQS identify what is considered a safe level of each pollutant to breathe, based on the most recent health and medical science, including an adequate margin of safety for those most at risk. These standards require states and local governments to take steps to reduce emissions to attain the standards. The standards also serve to alert families with children, seniors, individuals with lung or heart conditions, and others about dangerous air pollution levels through color-coded air quality alerts. This enables them to take necessary precautions to minimize their exposure. Under the Clean Air Act, the standards must be based solely on what is needed to protect health and must be periodically updated as the science evolves.[i]

Setting national health-based standards and requiring states that violate the standards to enact plans to clean up their air pollution problems have been a great benefit to the public health of the nation. Since the Clean Air Act was passed in 1970, the combined emissions of six key air pollutants have fallen by 78%, according to EPA. But as "State of the Air" 2024 shows, millions of people in this country are still breathing unhealthy air.

Purpose and history of "State of the Air"

In the year 2000, the American Lung Association launched its annual "State of the Air" report to provide the public with easy-to-understand information about the quality of the air in their communities based on the credible data and sound science that EPA is required to use to set and enforce the air quality standards.

For the first several years, "State of the Air" focused solely on ozone pollution and included data for five populations at increased risk – children, older adults, children with asthma, adults with asthma and people with emphysema. In 2004, changes to the air quality standards and the deployment of air pollution monitoring enabled the addition of short-term and year-round fine particle pollution to the report. Over time, accumulating scientific evidence has shown significant health harms from both ozone and particle pollution among other groups of vulnerable individuals. "State of the Air" has accommodated this new information by gradually adding populations-at-risk categories to its reporting. "State of the Air" 2024 now includes data for 10 vulnerable groups.

Since its inception 25 years ago, "State of the Air" has been tremendously successful in raising awareness about particle pollution and ozone, two of the most dangerous and pervasive air pollutants nationwide. The American Lung Association is proud and grateful that the public, the media, clean air advocates and decision-makers have used this report every day, year after year, to call attention to the work that remains to be done to protect the public from the threat of air pollution.

How "State of the Air" can be used

We write and release "State of the Air" every year to make information on air quality and health clear and accessible to everyone. We show the progress each community has made and how much more needs to be done to achieve healthy air. In this report, you'll find information on local air quality nationwide. You'll also

i In February 2024, after a lengthy wait, EPA announced a new, more protective annual standard for fine particle pollution. That standard is being used in the 2024 "State of the Air" report. The ozone standard is also overdue for a revision based on the science, but that process has faced multiple delays.

find the latest research on how air pollution affects health. With these tools, you can take proactive steps to safeguard both your lungs and your family's lungs from unhealthy air.

This report also includes ideas for how you can become a champion for clean air. First, we have suggestions for concrete actions you can take to reduce your own contributions to air pollution and climate change. And second, we invite you to take advocacy action with the American Lung Association. Our report includes policy recommendations for every level of government. Your voice is powerful, and when you tell your leaders that your lungs depend on stronger limits on air pollution, you make a compelling case. Please share your story and add your name to our petition—and then, take the next step. Reach out to your representatives at every level of government, share the "State of the Air" results for your community, and call on them to take action to protect public health.

State of the Air 2024 Methodology

Statistical Methodology: The Air Quality Data

Data Sources

Ozone and short-term particle pollution. The data on air quality throughout the United States were obtained from the U.S. Environmental Protection Agency's Air Quality System (AQS). The American Lung Association contracted with Allen S. Lefohn, Ph.D., A.S.L. & Associates, Helena, Montana, to characterize the hourly averaged ozone concentration information and the 24-hour averaged fine particulate matter ($PM_{2.5}$) concentration information for the three-year period for 2020-2022 for each monitoring site.

Year-round particle pollution. Design values for the annual $PM_{2.5}$ concentrations by county for the period 2020-2022 were retrieved December 18, 2023 from data posted on May 23, 2023, at the U.S. Environmental Protection Agency's website at https://www.epa.gov/air-trends/air-quality-design-values.

The Lung Association received important assistance from members of the National Association of Clean Air Agencies and the Association of Air Pollution Control Agencies. With their assistance, all state and local agencies were provided the opportunity to review and comment on the data in draft tabular form. The Lung Association reviewed any discrepancies with the agencies and, if needed, with Dr. Lefohn at A.S.L. & Associates. The American Lung Association wishes to express its continued appreciation to the state and local air directors for their willingness to assist in ensuring that the characterized data used in this report are correct.

Ozone Data Analysis

The 2020, 2021 and 2022 AQS hourly ozone data were used to calculate the daily 8-hour maximum concentration for each ozone-monitoring site. The hourly averaged ozone data were downloaded on June 26, 2023, following the close of the authorized period for quality review and assurance certification of data. Only the hourly average ozone concentrations derived from FRM and FEM monitors were used in the analysis. The data were considered for a three-year period for the same reason that EPA uses three years of data to determine compliance with the ozone standard: to prevent a situation in which anomalies of weather or other factors in any single year create air pollution levels that inaccurately reflect typical conditions. The highest 8-hour daily maximum concentration in each county was identified for each day of the EPA-defined ozone season for 2020, 2021 and 2022.

The current National Ambient Air Quality Standard for ozone is 70 parts per billion (ppb) measured over eight hours. EPA's Air Quality Index reflects the 70 ppb standard. A.S.L. & Associates prepared a table by county that summarized, for each of the three years, the number of days during the ozone season when the ozone level was within the ranges identified by EPA based on the Air Quality Index:

8-hour Ozone Concentration	Air Quality Index Levels
0-54 ppb	Good (Green)
55-70 ppb	Moderate (Yellow)
71-85 ppb	Unhealthy for Sensitive Groups (Orange)
86-105 ppb	Unhealthy (Red)
106-200 ppb	Very Unhealthy (Purple)
>200 ppb	Hazardous (Maroon)

The approach of this report was to identify the number of days that 8-hour daily maximum concentrations in each county occurred within the defined ranges. This provided an indication of the level of pollution for all monitored days, not just those days that fell under the requirements for attaining the National Ambient Air Quality Standards. Therefore, no data capture criteria were applied to eliminate monitoring sites or to require a number of valid days for the ozone season.

The daily maximum 8-hour average concentration for a given day is derived from the highest of the 17 consecutive 8-hour averages beginning with the 8-hour period from 7:00 a.m. to 3:00 p.m. and ending with the 8-hour period from 11:00 p.m. to 7:00 a.m. the following day. This follows the process EPA uses for the current ozone standard adopted in 2015. All valid days of data within the ozone season were used in the analysis. However, for computing an 8-hour average, at least 75 percent of the hourly concentrations (i.e., 6-8 hours) had to be available for the 8-hour period. In addition, an 8-hour daily maximum average was identified if valid 8-hour averages were available for at least 75 percent of possible hours in the day (i.e., at least 13 of the possible 17 8-hour averages). Because EPA includes days with inadequate data (i.e., not 75 percent complete) if the standard value is exceeded, our data capture methodology also included the site's 8-hour value if at least one valid 8-hour period were available, and it was 71 ppb or higher.

As instructed by the Lung Association, A.S.L. & Associates included the exceptional (e.g., wildfires) and natural events (e.g., stratospheric intrusions) that were identified in the database and identified for the Lung Association the dates and monitoring sites that experienced such events. Some data have been flagged by the state or local air pollution control agency to indicate that they had raised issues with EPA about those data. For each day across all sites within a specific county, the highest daily maximum 8-hour average ozone concentration was recorded and then the results were summarized by county for the number of days the ozone levels were within the ranges identified above.

Following receipt of the above information, the American Lung Association identified the number of days each county with at least one ozone monitor experienced air quality designated as orange (Unhealthy for Sensitive Groups), red (Unhealthy) or purple (Very Unhealthy). When insufficient data were available in any year, an "incomplete" was identified for the 3-year period. Insufficient data exist for various reasons. For example, when a specific monitor was used for a special study and the monitor was then discontinued in other years, an "incomplete" is assigned.

Short-Term Particle Pollution Data Analysis

A.S.L. & Associates identified the maximum daily 24-hour AQS $PM_{2.5}$ concentration for each county for each day in 2020, 2021 and 2022 with monitoring information. The 24-hour averaged $PM_{2.5}$ data were downloaded on August 2, 2023, following the close of the authorized period for quality review and assurance certification of data. The hourly averaged $PM_{2.5}$ concentration data in the EPA AQS database were characterized into 24-hour average $PM_{2.5}$ values by EPA and provided to A.S.L. & Associates. Using these results, A.S.L. & Associates prepared a table by county that summarized, for each of the three years, the number of days the maximum of the daily $PM_{2.5}$ concentration was within the ranges identified by EPA based on the Air Quality Index, as adopted by EPA on December 14, 2012[ii]:

ii Analysis of the daily $PM_{2.5}$ data for "State of the Air" 2024 was completed in January 2024, before EPA announced the finalization of the revised $PM_{2.5}$ NAAQS and Air Quality Index. The values used in this report are based on the 2012 Air Quality Index.

24-hour $PM_{2.5}$ Concentration	Air Quality Index Levels
0.0 µg/m³ to 12.0 µg/m³	Good (Green)
12.1 µg/m³ to 35.4 µg/m³	Moderate (Yellow)
35.5 µg/m³ to 55.4 µg/m³	Unhealthy for Sensitive Groups (Orange)
55.5 µg/m³ to 150.4 µg/m³	Unhealthy (Red)
150.5 µg/m³ to 250.4 µg/m³	Very Unhealthy (Purple)
greater than or equal to 250.5 µg/m³	Hazardous (Maroon)

All previous data collected for 24-hour average $PM_{2.5}$ were characterized using the AQI thresholds listed above.

The goal of this report was to identify the number of days that the maximum in each county of the daily $PM_{2.5}$ concentration occurred within the defined ranges. This approach provided an indication of the level of pollution for all monitored days, not just those days that fell under the requirements for attaining the National Ambient Air Quality Standards. Therefore, no data capture criteria were used to eliminate monitoring sites. Both 24-hour averaged PM data, as well as hourly averaged PM data averaged by EPA over 24 hours, were used. Included in the analysis are data collected using only FRM and FEM methods, which reported hourly and 24-hour averaged data. As instructed by the Lung Association, A.S.L. & Associates included the exceptional and natural events that were identified in the database and identified for the Lung Association the dates and monitoring sites that experienced such events. Some data have been flagged by the state or local air pollution control agency to indicate that they had raised issues with EPA about those data. For each day across all sites within a specific county, the highest daily maximum 24-hour $PM_{2.5}$ concentration was recorded and then the results were summarized by county for the number of days the concentration levels were within the ranges identified above.

Following receipt of the above information, the American Lung Association identified the number of days each county with at least one $PM_{2.5}$ monitor experienced air quality designated as orange (Unhealthy for Sensitive Groups), red (Unhealthy), purple (Very Unhealthy) or maroon (Hazardous).

Description of County Grading System

Ozone and Short-Term Particle Pollution (24-hour $PM_{2.5}$)

The grades for ozone and short-term particle pollution (24-hour $PM_{2.5}$) were based on a weighted average calculation. To determine weighted averages, the Lung Association followed these four steps separately for each pollutant in each county:

1. Assigned weighting factors to each category of the Air Quality Index. Days of poor air quality were given the following weighting factors:

   Orange days 1.0
   Red days 1.5
   Purple days 2.0
   Maroon days 2.5

   This ensured that days when the air pollution levels were worse received appropriately greater weight.

2. Multiplied the total number of days within each AQI category by its assigned factor, and added all the categories to calculate a total:

   Total = [Orange days x 1] + [Red days x 1.5] + [Purple days x 2] + [Maroon days x 2.5]

3. Divided the total by three to determine the weighted average, since the monitoring data were collected over a three-year period:

Weighted Average = Total ÷ 3

Weighted average was then used to determine each county's grades for ozone and 24-hour $PM_{2.5}$ according to the following table:

Weighted Average	Grade
0.0	A
0.3 to 0.9	B
1.0 to 2.0	C
2.1 to 3.2	D
3.3 or higher	F

All counties with a weighted average of zero (corresponding to no exceedances of the standard over the three-year period) were given a grade of "A."

For ozone, an "F" grade was set to generally correlate with the number of unhealthy air days that would place a county in nonattainment for the ozone standard.

For short-term particle pollution, fewer unhealthy air days are required for an F than for nonattainment under the $PM_{2.5}$ standard. The 2012 national air quality standard is set to allow two percent of the days during the three years to exceed 35 µg/m^3 (called a "98th percentile" form) before violating the standard. That could be as many as 21 unhealthy days in three years. The grading used in this report is roughly equivalent to allowing only about one percent of the days to be those on which $PM_{2.5}$ concentrations were over 35 µg/m^3 (called a "99th percentile form"). The American Lung Association supports using the 99th percentile form as a more appropriate form of the standard that is intended to protect the public from short-term episodes or spikes in pollution.

Weighted averages allow comparisons to be drawn based on severity of air pollution. For example, if one county had nine orange days and no red days, it would earn a weighted average of 3.0 and a D grade. However, another county that had only eight orange days but also two red days, which signify days with more serious air pollution, would receive an F. That second county would have a weighted average of 3.7.

Note that this system differs significantly from the methodology EPA uses to determine violations of both the ozone and the 24-hour $PM_{2.5}$ standards. EPA determines whether a county violates the ozone standard based on the fourth maximum daily 8-hour ozone reading each year averaged over three years. Multiple days of unhealthy air beyond the highest four in each year are not considered. By contrast, the system used in this report recognizes when a community's air quality repeatedly results in unhealthy air throughout the three years. Consequently, some counties will receive grades of "F" in this report, showing repeated instances of unhealthy air, even while still meeting the EPA's 2015 ozone standard. This is consistent with the American Lung Association's position is that the evidence shows that the 2015 ozone standard fails to adequately protect public health.

Counties were ranked by weighted average. Metropolitan areas were ranked by the highest weighted average among the counties within a given Metropolitan Statistical Area as of 2020 as defined by the White House Office of Management and Budget (OMB).

Weighted average values from earlier years are from prior reports and updated when new standards are implemented.

Year-Round Particle Pollution (Annual $PM_{2.5}$)

Since no comparable Air Quality Index exists for year-round particle pollution (annual $PM_{2.5}$), the grading was based on the 2024 National Ambient Air Quality Standard for annual $PM_{2.5}$ of 9 µg/m^3. Counties that EPA listed as being at or below 9 µg/m^3 were given grades of "Pass." Counties that EPA listed as being above 9 µg/m^3 were given grades of "Fail." Where data was collected but was insufficient for EPA to determine a design value, those counties received a grade of "Incomplete."

A design value is the calculated concentration of a pollutant based on the form of the National Ambient Air Quality Standard and is used by EPA to determine whether the air quality in a county meets the standard. Counties were ranked by design value. Metropolitan areas were ranked by the highest design value among the counties within a given Metropolitan Statistical Area as of 2020 as defined by the OMB.

Statistical Methodology: Population Data

The Lung Association calculates the county population at risk from these pollutants based on the population from the entire county where the monitor is located. The Lung Association then calculates the metropolitan population at risk based upon the largest metropolitan area that contains that county. Not only do people from that county or metropolitan area circulate within the county and the metropolitan area, but the air pollution also circulates to that monitor from throughout the county and metropolitan area.

Details about how the populations-at-risk numbers are derived can be found in **Understanding Grades and Tables**.

Key Findings

Nearly **4 in 10** people live in places with unhealthy levels of air pollution

People of color were 2.3 times as likely as white people to live in a county with 3 failing grades.

Climate change is making the job of cleaning up the air more difficult.

The "State of the Air" 2024 report finds that despite decades of progress cleaning up air pollution, 39% of Americans—131.2 million people—still live in places with failing grades for unhealthy levels of ozone or particle pollution. This is 11.7 million more people breathing unhealthy air compared to last year's report.

The significant rise in the number of individuals whose health is at risk is the result of a combination of factors. Extreme heat, drought and wildfires are contributing to a steady increase in deadly particle pollution, especially in the western U.S. Also, this year's "State of the Air" report is using EPA's new, more protective national air quality standard for year-round levels of fine particle pollution, which allows for the recognition that many more people are breathing unhealthy air than was acknowledged under the previous weak standard.

Again this year, "State of the Air" finds that the burden of living with unhealthy air is not shared equally. Although people of color make up 41.6% of the overall population of the U.S., they are 52% of the people living in a county with at least one failing grade. In the counties with the worst air quality that get failing grades for all three measures of air pollution, 63% of the nearly 44 million residents are people of color, compared to 37% who are white.

The "State of the Air" report looks at two of the most widespread and dangerous air pollutants, fine particles and ozone. The air quality data used in the report are collected at official monitoring sites across the United States by the federal, state, local and Tribal governments. The Lung Association calculates values reflecting the air pollution problem and assigns grades for daily and long-term measures of particle pollution and daily measures of ozone. Those values are also used to rank cities (metropolitan areas) and counties. This year's report presents data from 2020, 2021 and 2022, the most recent quality-assured nationwide air pollution data publicly available. See ***About This Report*** for more detail about the methodology for data collection and analysis.

"State of the Air" 2024 is the 25th edition of this annual report, which was first published in 2000. From the beginning, the findings in "State of the Air" have reflected the successes of the Clean Air Act, as emissions from transportation, power plants and manufacturing have been reduced. In recent years, however, the findings of the report continue adding to the evidence that a changing climate is making it harder to protect human health. High ozone days and spikes in particle pollution related to extreme heat, drought and wildfires are putting millions of people at risk and adding challenges to the work that states and cities are doing across the nation to clean up air pollution.

> When we started doing "State of the Air" in 2000, I never imagined that in the 25th edition we would be reporting that more than 100 million people are still breathing unhealthy air. It's unacceptable.
>
> **Paul Billings,**
> **American Lung Association**

The combination of policy-driven reductions in emissions on the one hand and climate change-fueled increases in pollution on the other hand have resulted in an ongoing and marked disparity between air quality in eastern and western states, especially for the daily measure of fine particle pollution. In this year's report, only 4 large counties in three states east of the Mississippi River, earned failing grades for daily spikes in fine particle pollution, compared to 108 counties in 16 western states.

When looking at levels of year-round particle pollution, however, the story becomes more nuanced. The majority of the 119 counties earning failing grades for year-round particle pollution are in the western U.S., but the new, stronger standard is revealing remaining air quality problems in eastern and midwestern states. In "State of the Air" 2024 there were 47 counties in 12 states east of the Mississippi River with unhealthy year-round levels of fine particles.

In "State of the Air" 2024, the metropolitan areas that ranked worst in the country for each of the three pollutant measures were unchanged from last year's report. Bakersfield, California topped the list for worst short-term particle pollution again this year. Bakersfield also continued as the metropolitan area with the worst level of year-round particle pollution for the 5th year in a row. Los Angeles remains the city with the worst ozone pollution in the nation, as it has been in 24 of the 25 years of reporting in "State of the Air"– even though city residents are exposed to unhealthy levels of ozone an average of 55 days a year fewer than now than they were in 2000.

Short-term Particle Pollution Trends

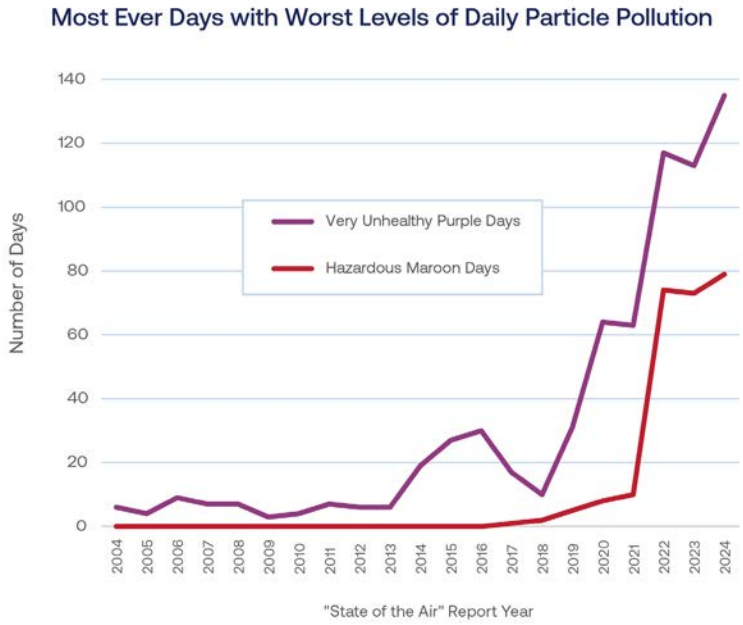
65 million people live in counties with **F grades** for daily particle pollution.

In the years 2020, 2021 and 2022, there were 65 million people living in the 112 counties in 19 states that earned an F grade for unhealthy spikes in particulate matter air pollution. This represents an increase of 1.3 million more people than in last year's report, the sixth straight year of increasing health threat of this deadly pollutant.

Even compared with the past several years of "State of the Air" reports—in which many cities and counties experienced their highest weighted average number of days ever reported for fine particle pollution—results this year were again worse, especially throughout much of the western United States. This trend in recent years is a reversal after roughly a decade of improvements resulting from the requirements of the Clean Air Act.

In 2004, with data from 2001, 2002 and 2003, the "State of the Air" report added grades and ranks for fine particle pollution. It was the first time three years of data was available from a network of monitors put in place following EPA's adoption in 1997 of a new health standard to address particle pollution. At that time, 106 counties in 30 states earned an F grade for short-term particle pollution, affecting the health of 81 million people. The air quality standard was weaker than it is now, meaning that in fact many more people were breathing unhealthy air. If the current standard had been in effect, 189 counties in 36 states would have gotten failing marks.

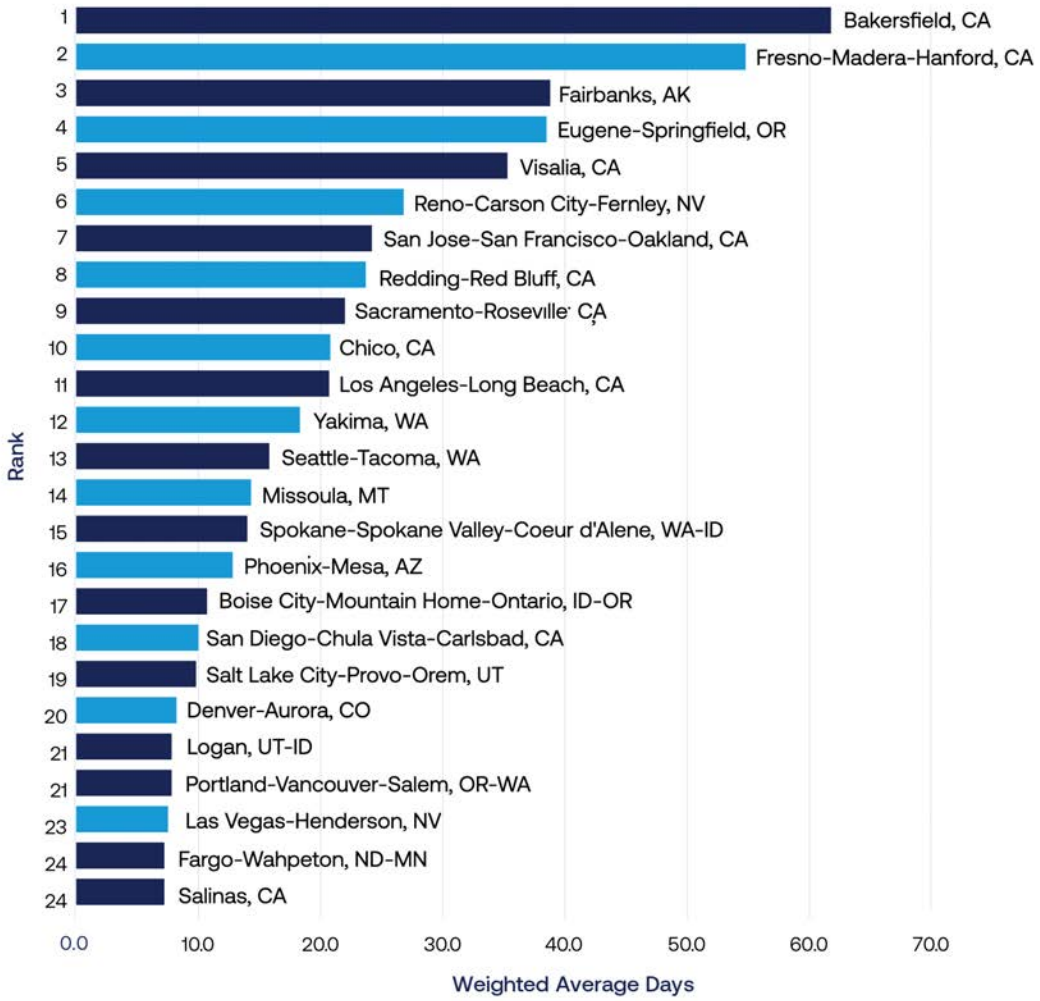
Wildfires in the western United States and Canada remain the major contributing factor to the increasing number of days and places with unhealthy levels of particle pollution in recent years. Wildfires are also continuing to increase the severity of pollution, resulting in the highest ever number of days designated as either purple or maroon (135 and 79 days, respectively). These are the levels on the Air Quality Index that carry the strongest health warnings. On purple Very Unhealthy days, "the risk of health effects is increased for everyone." On maroon Hazardous days, the highest category, a health warning of emergency conditions is issued, saying, "Everyone is more likely to be affected."



In the years 2020, 2021 and 2022, the health of 32.3 million people across 58 counties in ten states was put at risk on "purple" or "maroon" days for fine particle pollution. This is slightly worse than the findings in last year's "State of the Air" and a worrisome sign of a trend that is continuing as climate change worsens.

In this year's report, thirty-three metropolitan areas equaled or exceeded their previous worst-ever weighted average number of days with unhealthy levels of fine particle pollution. Among those cities ranked the worst 25, the average number of days per year that residents were exposed to high levels of fine particle pollution increased by more than two days, to a weighted average of 20.8 days. Seven of the 25 most polluted cities for this measure posted their highest-ever number of unhealthy days: Fairbanks, Alaska; Visalia, California; Boise City, Idaho; Eugene, Oregon; Las Vegas and Reno, Nevada and Spokane, Washington. Only one city, Logan, Utah, recorded its fewest-ever number of unhealthy days, though it still earned an "F" grade.

25 Cities Most Polluted by Daily PM



All the 25 worst cities for short-term particle pollution are in the Western U.S.

Twenty-two of last year's worst 25 cities remained listed among the worst 25 in this year's report, with most of their relative ranks shifting by no more than two places. Three metro areas saw declines in their air quality that moved them up among the worst 25: Las Vegas, Nevada, for the first time, and well as Portland, Oregon and Seattle, Washington. Medford, Oregon, and Lancaster and Pittsburgh, Pennsylvania improved enough to leave the list. Pittsburgh, in 26th place this year, narrowly avoided the 25 worst list, noteworthy as first time that Steel City has earned that distinction for this measure.

In "State of the Air" 2024, with the departure of Lancaster and Pittsburgh, for the first time in the report's history, no cities among the 25 worst for short-term particle pollution were in the eastern United States. The farthest east of any metro area on the list was Fargo-Wahpeton, ND-MN.

The New National Standard for Particle Pollution in "State of the Air"

In February 2024, the U.S. EPA made a long-overdue update to the National Ambient Air Quality Standards for fine particle pollution. In the final rule, EPA revised the annual standard from 12 to 9 micrograms per cubic meter (µg/m3) and opted not to revise the current 24-hour standard of 35 µg/m3. Although this stronger annual standard will yield significant health benefits to millions of people nationwide, it falls short of what the American Lung Association and other health organizations were calling for, based on existing science (see ***Health Impact of Air Pollution***).

The grades and rankings for annual particle pollution in "State of the Air" 2024 were calculated using the new 9 µg/m3 standard. As a result, many more places across the country earned a failing grade this year compared to the year before, a change that more accurately reflects the actual health risk from breathing the air in those communities.

Another component of EPA's new rule was some changes to the Air Quality Index (AQI) to better reflect recent health science on exposure to fine particles. EPA made adjustments to the breakpoints between the color-coded categories, so that the health warnings associated with those categories will be issued at lower pollution levels than they were previously. After the changes go into effect in April 2024, the breakpoint between green Good and yellow Moderate was changed to align with the updated annual standard. Furthermore, some days that would have been red Unhealthy days will be declared purple Very Unhealthy days, and some purple Very Unhealthy days will be recognized as maroon Hazardous days.

The updated Air Quality index is not reflected in this year's report, but will be applied to the grades and weighted averages for short-term particle pollution in next year's "State of the Air".

Year-round Particle Pollution Trends

Nearly 90.7 million people live in counties with failing grades for year-round particle pollution

With the recent adoption of a more protective air quality standard for year-round levels of fine particle pollution, "State of the Air" 2024 finds that nearly 90.7 million people are living in 119 counties where year-round particle pollution levels do not meet the national air quality standard, and therefore receive a failing grade. This is a dramatic increase from last year's report that, using the previous weaker standard, identified slightly fewer than 18.8 million people living in 17 counties with failing marks for year-round levels of fine particle pollution.

Most of the additional 71.9 million more people now included in the total population living in areas with failing grades for year-round particle pollution have in fact been breathing unhealthy air for years. The big change this year is the standard, and the overdue recognition of the health risk from year-round exposure to this deadly pollutant. The severity of annual particle pollution only worsened slightly in this year's report. When looking nationwide at all the counties with measurements for this pollutant, there was little change in the national average of those counties' year-round levels, with about an equal number improving as got worse.

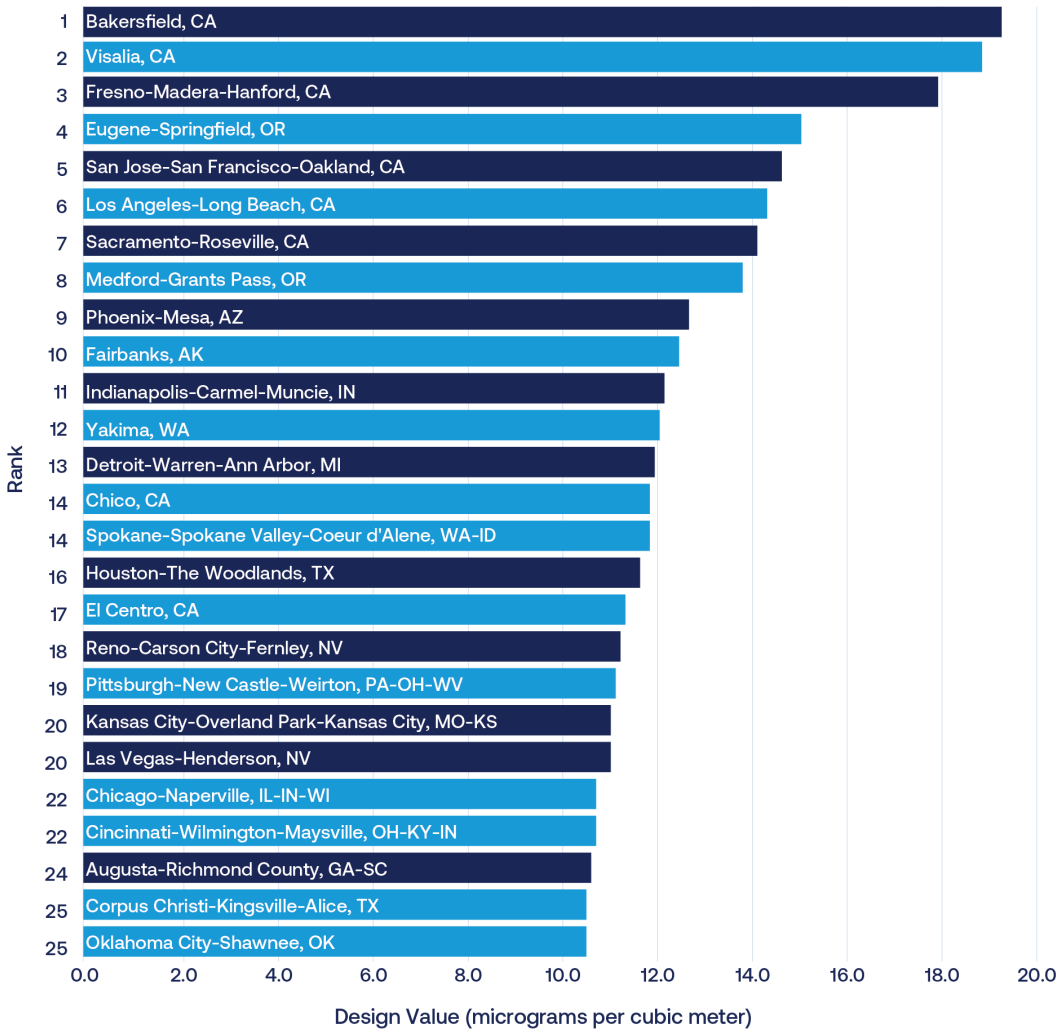
In 2004, with data from 2001, 2002 and 2003, the "State of the Air" report added grades and ranks for fine particle pollution. It was the first time three years of data was available from a new network of monitors put in place following EPA's adoption of a new health standard to address particle pollution in 1997. At that time, 120 counties in 22 states earned an F grade for annual particle pollution, affecting the health of 66 million people. The air quality standard was weaker than it is now, meaning that in fact many more people were breathing unhealthy air. If the 2024 standard had been in effect at that time, 365 of the monitored counties in 47 states would have gotten failing marks.

By its nature, the year-round measure of average particle pollution is not as volatile as the daily measure. Changes over time may look smaller, but because they typically represent recurring exposures over many days and weeks, seemingly minor differences can have a big impact on public health. In "State of the Air" 2024, the most polluted cities for year-round particle pollution continued the worsening trend of recent years by an average of about 0.25 micrograms per cubic meter (from 12.3 to 12.55 µg/m3), with 16 metro areas worsening compared with 7 improving.

Five of the 26 most polluted cities for this measure posted their worst-ever levels of year-round particle pollution. Yakima, Washington remained unchanged from last year's value, making this the third consecutive year at the same record level. The other four in the worst-ever group were Sacramento, California; Reno, Nevada; Eugene, Oregon; and Spokane, Washington. Of these four, only Sacramento had also posted a new worst-ever performance in last year's report.

In contrast, seven of the 26 most polluted cities had lower year-round levels compared to last year. Three of these tied or exceeded their previous best-ever performance in "State of the Air" 2024: Los Angeles, California; Cincinnati, Ohio and Pittsburgh, Pennsylvania. Nevertheless, all 26 of the worst-ranked metro areas, along with 46 others, had poor enough long-term average particle pollution levels to earn failing grades in this year's report.

25 Cities Most Polluted by Annual PM



Twenty of last year's worst 25 cities remained listed among the 26 (because of a tie for 25th place) in this year's report. Even though most of their relative ranks shifted by no more than two places, there were some significant changes among the other metro areas. Eugene, Oregon's increase in its annual average level of fine particle pollution was worst in the country, resulting in its rank dropping from 15th worst in last year's report to 4th worst in "State of the Air" 2024. In contrast, Birmingham, Alabama's improvement to its best-ever annual average level of particle pollution was the largest in the country and resulted in its rank improving from 18th to 96th worst.

Five metro areas improved enough to leave the worst-cities list for this measure. In addition to Birmingham, they were Louisville, Kentucky; Bend, Oregon; and Laredo and McAllen, Texas. Six metro areas replaced them, five of them debuting on the list: Kansas City; Reno, Nevada; Oklahoma City, Oklahoma; Corpus Christi, Texas; and Spokane, Washington. Las Vegas, Nevada rejoined the list for the first time since the 2018 "State of the Air" report.

Unlike the worst 25 cities for the daily measure of particle pollution that were all in the west, the 25 worst cities for annual particle pollution were somewhat more widely distributed around the country. Cities predominantly affected by western drought and wildfires, notably eight in California, and two each in Nevada, Oregon, and Washington, still made up the highest share. However, cities less

affected by wildfire smoke in this year's report, but still grappling with pollution from local industrial and mobile sources, continued to show up on this list. There were ten of these spread among nearly as many states: Indianapolis, Detroit, Houston, Pittsburgh, Kansas City, Cincinnati, Chicago, Augusta, Corpus Christi, and Oklahoma City.

Ozone Pollution Trends

Exposure to unhealthy levels of ozone air pollution continues to make breathing difficult for more Americans across the country than any other single pollutant. In the years 2020, 2021, and 2022, some 100.6 million people lived in the 125 counties in 26 states that earned an "F" grade for ozone. This means that three of every ten people, including 22.5 million infants and children, 15.5 million people age 65 or older, and tens of millions in other groups at highest risk of health harm, are exposed to high levels of ozone on enough days to earn the air they breathe a failing grade.

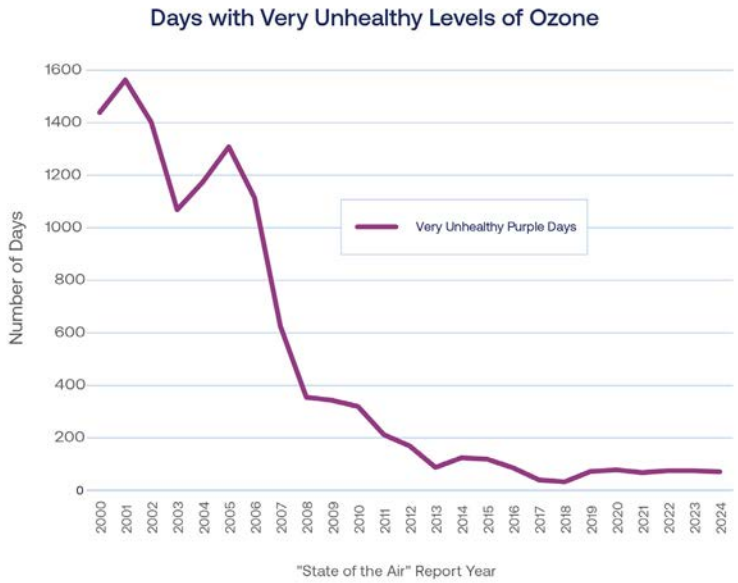
More than 100 million people live in counties with **F grades** for ozone smog.

Although ozone air pollution remains a serious threat to public health, one trend in this year's "State of the Air" report is continuing in a positive direction. For the fourth consecutive report, the number of people living in counties with a failing grade for ozone declined, this year by 2.4 million people.

Ambient ozone levels are influenced by a complex interaction of natural and human-driven factors that can vary from year to year, with some years being better overall than others. However, the long-term trend of improvement in ozone levels can be attributed to the fact that the Clean Air Act has been working. Controls placed on emissions have increasingly resulted in the replacement of more polluting engines, fuels, and industrial processes nationwide. The transition of the economy away from coal-fired power plants, the dirtiest fossil fuel, and towards clean renewable sources of energy, has unquestionably had an impact, especially in parts of the eastern United States.

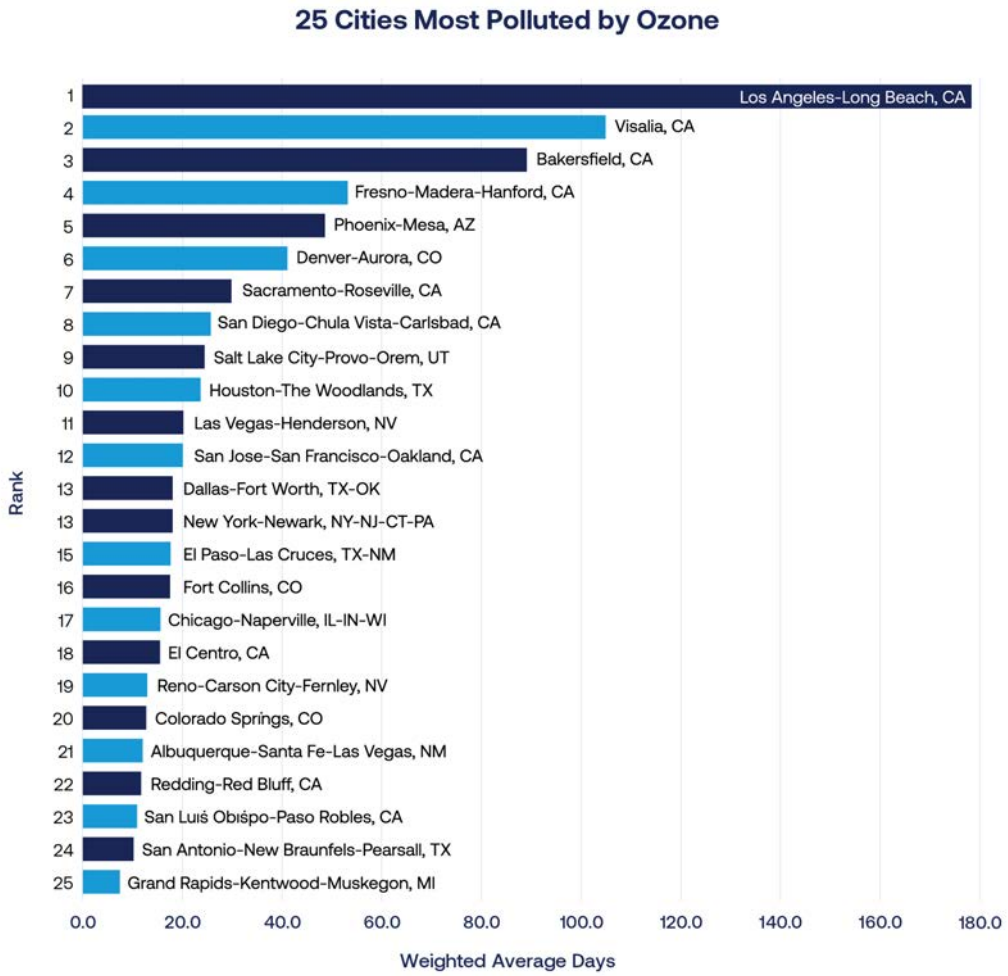
When the first "State of the Air" report was released in 2000, with ozone data from 1996, 1997 and 1998, 332 counties in 38 states earned an F grade, putting the health of 132.5 million people at risk. The air quality standard was weaker than it is now, meaning that in fact many more people were breathing unhealthy air. If the current standard had been in effect at that time, 463 counties in 43 states would have gotten failing marks. Of the counties where data was being collected, only 9 would have received an A.

In many parts of the country, the weighted average number of days of unhealthy ozone has declined substantially over the years. It is worth noting that the severity of ozone pollution has also dropped. In 2001, the "State of the Air" report recorded a 25-year high of 1,563 very unhealthy Purple days for ozone around the country. In 2024, that number has dropped to a 25-year low of 71 days. That is still 71 days too many, but an important indicator of progress.



In spite of the promising trend, some trouble signs appear in this year's report, and time will tell whether they are the result of expected fluctuations or more systemic threats. Nationwide, nearly twice as many counties worsened as improved. The weighted average number of unhealthy ozone days of all counties taken together increased by about 6%. And although the number of counties earning "F" grades remained nearly unchanged from the 2023 report, those earning "A" grades dropped by more than 10%, from 302 to 270.

The list of 25 cities with the worst ozone pollution in "State of the Air" 2024 and their order of ranking remained remarkably stable compared with last year's report. The largest change in rank was only 5 places as Dallas-Fort Worth worsened from 18th to 13th worst. This year, Hartford Connecticut was the only city that improved enough to move off the worst 25 list. It was replaced by Grand Rapids, Michigan, which earned a spot on the list for the first time in 8 years. None of the cities on the list reported a worst-ever average number of days of ozone smog. Two cities, Fresno and El Centro, California recorded their fewest-ever number of unhealthy days for ozone, though they still earned "F" grades.



The geographical distribution of cities with the worst ozone problems confirms a pattern seen over nearly a decade of reporting: the great majority are western cities. Cities in the West and the Southwest continue to dominate the list of the most ozone-polluted cities. California retains its position of being the state with the most metro areas on the list, with 10 of the 25 most-polluted cities, while the six states of Arizona, Colorado, Nevada, New Mexico, Texas, and Utah accounted for 12 others. They are joined this year by only three more easterly cities, New York, Chicago, and Grand Rapids.

Although cleanup of ozone precursor pollutants has been working to reduce ozone concentrations, the impact of climate change in the West has meant higher temperatures, dry, sunny skies and more frequent stagnation events that are contributing to the number of unhealthy ozone days being higher than it would otherwise be. Simply, climate change is undercutting the progress we would have made.

Mike Nelson, chief meteorologist at Denver7, goes beyond the seven-day forecast to educate viewers on climate issues. Alongside the daily high temperature and precipitation, his weather graphics include the Denver area's air quality rating and the planet's current amount of carbon dioxide, the heat-trapping gas that's a major contributor to global warming.

He says on-air meteorologists have a special responsibility to talk about climate change.

"The television meteorologist is as close to a scientist as most Americans are going to get. People invite us into their homes every single day to explain something complicated – the weather," Nelson says. "Why would we shy away from talking about the most important thing we face globally?"

Nelson has been forecasting weather in Colorado for more than 30 years. During that time, the Clean Air Act and other regulations have helped improve air quality, he says. But he notes that the increase in large wildfires across the West in recent years is exacerbating particulate matter pollution. A hotter, drier climate is helping to fuel these more intense wildfires and days with heavy smoke, Nelson says.

Although related, climate and weather aren't the same. Climate is the long-term average of conditions, whereas weather refers to short-term changes and is often fast-changing. Nelson uses a football analogy: "Climate is the history of the National Football League; weather is one play in a game."

Nelson says the birth of his first grandchild 11 years ago pushed him to speak more about climate implications. Today's children and future generations are most at risk if we don't reduce carbon emissions, he notes.

"We can still fix it," Nelson says, "but the clock is ticking, and we should get going on it at a faster pace."

Mike Nelson
Chief Meteorologist at Denver7

Populations at Risk

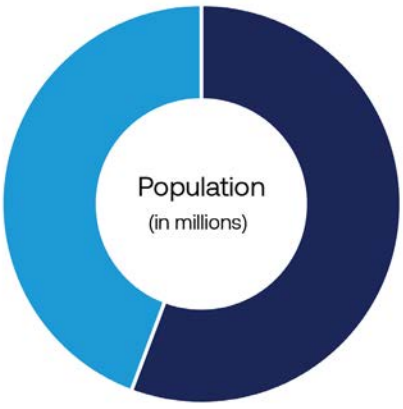
Nearly 263 million people live in the 885 counties with enough monitoring data to be assigned a grade for at least one pollutant in this year's report. The majority of U.S. counties actually don't have monitors—which means that many communities, especially rural ones, don't have official monitored information on their air quality. It is important to note that the population numbers included in this section are only for those places that collect air pollution data, and do not reflect the entire population of these groups in the U.S. The availability of data, and hence the population that is included in this report, differs for each pollutant.

Grade	Population
A	50.3
B	37.0
C	38.5
D	18.6
F	100.6

Population (millions) by County Ozone Grade

Grade	Population
A	49.2
B	64.8
C	41.2
D	7.1
F	65.0

Population (millions) by Daily PM Grade



Grade	Population
Pass	114.1
Fail	90.7

Population (millions) by Annual PM Grade

All of the 131.2 million Americans living in places with failing grades for unhealthy levels of ozone or particle pollution are at risk of harm to their health. But some groups of people are especially vulnerable to illness and death from their exposure. *See **People at Risk** for more detail about the factors that contribute to increased risk.*

The number of people in these high-risk groups in "State of the Air" 2024 are as follows:

- **People of color**—About 68.9 million people of color live in counties that received at least one failing grade for ozone and/or particle pollution. Over 27.5 million people of color live in counties that received failing grades on all three measures, including some 16.8 million Hispanics.
- **People experiencing poverty**—Sixteen million people with incomes meeting the federal poverty definition live in counties that received an F for at least one pollutant. More than 5.4 million people in poverty live in counties failing all three measures.
- **Children and older adults**—More than 29.2 million children under age 18 and some 20.6 million adults age 65 and over live in counties that received an F for at least one pollutant. More than 9.7 million children and more than 6.7 million seniors live in counties failing all three measures.
- People with underlying health conditions
  - **Asthma**—More than 1.9 million children and nearly 9.8 million adults with asthma live in counties that received an F for at least one pollutant. More than 600,000 children and some 3.1 million adults with asthma live in counties failing all three measures.
  - **Chronic Obstructive Pulmonary Disease (COPD)**—Some 6.0 million people with COPD live in counties that received an F for at least one pollutant. More than 1.7 million people with COPD live in counties failing all three measures.
  - **Lung Cancer**—More than 55,000 people diagnosed with lung cancer in 2020 live in counties that received an F for at least one pollutant, and about 15,200 people diagnosed with lung cancer live in counties failing all three measures.
  - **Cardiovascular Disease**—More than 8.4 million people with cardiovascular disease live in counties that received an F for at least one pollutant. More than 2.5 million people live in counties failing all three measures.
  - **Pregnancy**—Adverse impacts from air pollution have been shown both for those who are pregnant as well as for the developing fetus. More than 1.4 million pregnancies were recorded in 2022 in counties that received at least one failing grade for particle pollution. Of those, more than 478,000 were in counties that received failing grades for all three measures.

*For more detail about the number of people at risk by grade and by pollutant, see **Data Table 1**. The populations at risk are also included by county in the **State Data Tables**.*

Most Polluted Places to Live

In addition to the 25 worst cities for each pollutant listed above, the 25 most polluted counties for ozone and particle pollution are ranked in the tables below.

Ozone Ranking	State	County	WA
1	California	San Bernardino	175.2
2	California	Riverside	128
3	California	Los Angeles	114.8
4	California	Tulare	103
5	California	Kern	87.5
6	California	Fresno	52.2
7	Arizona	Maricopa	47.7
8	Colorado	Jefferson	40.3
9	California	Placer	29.3
10	Colorado	Douglas	26
11	California	San Diego	25.2
12	California	Nevada	24
12	Utah	Salt Lake	24
14	Texas	Harris	23.2
15	California	Madera	22.3
16	Arizona	Pinal	21.8
17	New Mexico	Eddy	21.7
18	Colorado	Arapahoe	20.8
19	California	Kings	20.5
20	Nevada	Clark	19.8
21	California	Stanislaus	19.7
22	California	El Dorado	19.3
23	California	Mariposa	18.7
24	California	Orange	18.3
25	Connecticut	Fairfield	17.7
25	Texas	Tarrant	17.7

PM Ranking	State	County	WA
1	California	Kern	61.8
2	California	Fresno	54.8
3	California	Mono	43.2
4	California	Kings	42.8
5	Oregon	Klamath	39.3
6	California	Inyo	39
7	Alaska	Fairbanks North Star	38.8
8	Oregon	Lane	38.5
9	California	Tulare	35.3
10	California	Siskiyou	27.8
11	Nevada	Washoe	26.8
12	Nevada	Douglas	26.7
13	California	Plumas	25.3
14	Nevada	Carson City	24.7
15	California	Stanislaus	24.2
16	California	Tehama	23.7
17	California	Madera	22.2
18	California	Placer	22
18	California	Sacramento	22
20	California	Butte	20.8
20	California	Nevada	20.8
22	California	Los Angeles	20.7
23	California	Colusa	19.8
24	California	Sutter	19
25	California	San Joaquin	18.3
25	Washington	Yakima	18.3

Annual PM Ranking	State	County	DV
1	California	Mono	19.5
2	California	Kern	18.8
3	California	Tulare	18.4
4	California	Fresno	17.5
5	California	Plumas	17
6	California	Kings	16.6
7	Oregon	Klamath	15.6
8	Oregon	Lane	14.7
9	California	Stanislaus	14.3
10	California	San Bernardino	14
11	California	Sutter	13.8
12	California	Riverside	13.6
13	Oregon	Jackson	13.5
14	California	Los Angeles	13.4
14	Montana	Lincoln	13.4
14	Washington	Okanogan	13.4
17	California	Madera	13.2
18	Arizona	Pinal	12.4
19	California	Merced	12.3
19	California	San Joaquin	12.3
21	Alaska	Fairbanks North Star	12.2
22	Indiana	Marion	11.9
23	Washington	Yakima	11.8
24	California	Sacramento	11.7
24	Michigan	Wayne	11.7

Thirty counties, listed alphabetically by state below, received failing grades for all three measures of pollution:

Arizona	Maricopa, Pinal
California	Alameda, Butte, Contra Costa, Fresno, Imperial, Kern, Kings, Los Angeles, Madera, Merced, Orange, Placer, Riverside, Sacramento, San Bernardino, San Diego, Santa Clara, Shasta, Stanislaus, Sutter, Tehama, Tulare
Colorado	Denver
Michigan	Wayne
Nevada	Clark, Washoe
New Mexico	Bernalillo
Utah	Salt Lake

Cleanest Places to Live

Many cities in the U.S. enjoy air that is considered clean for one or more of the pollution measures tracked in "State of the Air." In this year's report, 55 of the cities for which there is monitoring data had zero high short-term particle days and 75 cities had zero ozone days. Because year-round particle pollution is scored differently, the cleanest cities for this measure can be ranked, and the best 25 are considered cleanest. *See **Data Tables 3a-c**.*

In this year's report, only five cities rank on all three cleanest cities lists for particle pollution and ozone. They had zero days high in particle pollution and in ozone and are among the 26 cities with the lowest year-round particle levels. After last year's one-time appearance on all three cleanest lists, Asheville and Greenville, NC and Rochester NY all lost their place this year because of increases in ozone smog pollution. The other four again repeat their appearance on the combined list this year. Only Johnson City-Kingsport-Bristol, TN-VA, in its debut, was added to the list.

Listed alphabetically, the cleanest cities are:

Bangor, ME

Johnson City-Kingsport-Bristol, TN-VA

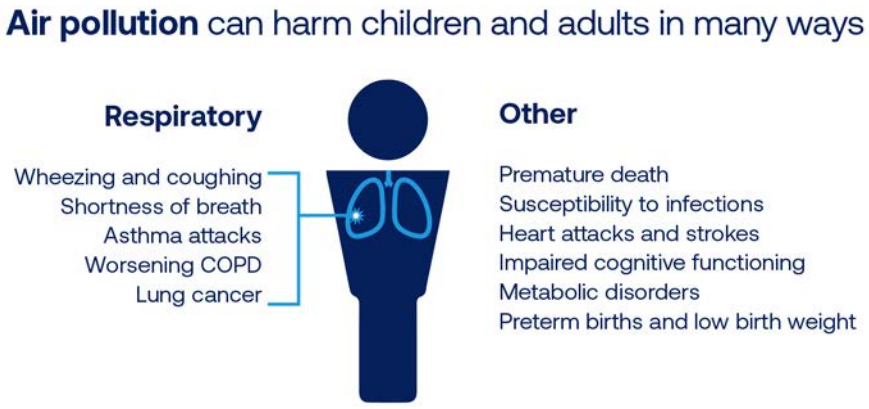
Lincoln-Beatrice, NE

Urban Honolulu, HI

Wilmington, NC

Health Impact of Air Pollution

Years of scientific research have clearly established that particle pollution and ozone are a threat to human health at every stage of life, increasing the risk of premature birth, causing or worsening lung and heart disease, and shortening lives. Some groups of people are more at risk of illness and death than others, because they are more likely to be exposed, or are more vulnerable to health harm, or often both.



Health Effects of Particle Pollution

Particle pollution—also known as particulate matter or soot—is a deadly and growing threat to public health in communities around the country. The more researchers learn about the health effects of particle pollution, the more dangerous it is recognized to be.

What is particle pollution?

Particle pollution refers to a mixture of tiny bits of solids and liquids in the air we breathe. Particle pollution comes from many sources. Factories, power plants, and diesel- and gasoline-powered vehicles and equipment either directly emit fine particles or generate other pollutants, such as nitrogen oxides (NO_X) and sulfur oxides (SO_X), known as precursors because they can then form into fine particles in the atmosphere. Other sources of particle pollution include wildfires, burning wood in wood stoves or residential fireplaces and burning biomass for electricity.

Researchers and regulators categorize particles according to size, grouping them as coarse, fine and ultrafine. Coarse particles, called PM10, can include wind-blown dust, ash, pollen and smoke. Fine particles, $PM_{2.5}$, are most often a by-product of burning wood or fossil fuels, and may include components such as toxic compounds, salts and metals. The tiniest are called ultrafine particles, or $PM_{0.1}$. They are also produced by combustion, and are included in the larger category of $PM_{2.5}$.

Individual fine particles are too small to be visible, but when pollution levels are high, they can make the air appear thick and hazy.

The differences in size make a big difference in how particles affect our health. Our bodies' natural defenses help us to keep the coarse particles we inhale out of the deepest parts of our lungs, although these particles do deposit in the larger airways. However, those defenses do not keep smaller fine or ultrafine particles from penetrating deep into the lungs and even all the way into the air sacs. Many of these particles get trapped there, while the smallest are so tiny that they can pass from the air sacs into the bloodstream and disperse to other organs of the body.

What can particles do to your health?

Particle pollution can be very dangerous to breathe, especially at higher concentrations. It can trigger illness, hospitalization and premature death. Researchers estimate that $PM_{2.5}$ is responsible for nearly 48,000 premature deaths in the United States every year.[1]

Short-Term Exposure

Short-term spikes in particle pollution that last from a few hours to a few days can kill. Premature deaths from breathing these particles can occur on the very day that particle levels are high, or up to a month or two afterward. Most premature deaths are from respiratory and cardiovascular causes. Particle pollution does not just make people die a few days earlier than they might otherwise—in many cases these deaths would not have occurred for years if the air were cleaner.[2]

Studies linking short-term exposure to $PM_{2.5}$ to death from all causes have been accumulating for a number of years. Taken together, this body of research provides consistent evidence of positive associations between particle pollution and mortality across diverse geographic locations and in populations with a wide range of demographic characteristics. In 2019, an international study looking at 499 cities across the globe reinforced these consistent findings.[3]

Exposure to even low levels of fine particles can be deadly. Looking nationwide in a 2017 study, researchers found that older adults faced a higher risk of premature death even when levels of short-term particle pollution remained well below the current national standard. This was consistent whether the older adults lived in cities, suburbs or rural areas.[4] Another study published in 2018 analyzed mortality data from 135 U.S. cities and found a causal relationship with exposure to $PM_{2.5}$ at concentrations below the federal standard.[5]

Particle pollution also has many other harmful effects, ranging from decreased lung function to heart attacks. Extensive research has linked short-term increases in particle pollution to:

- increased mortality in infants;[6]
- increased hospital admissions for cardiovascular disease, including heart attacks and strokes;[7]
- increased hospital admissions and emergency department visits for chronic obstructive pulmonary disease (COPD);[8]
- increased severity of asthma attacks and hospitalization for asthma among children.[9,10]

Year-Round Exposure

Decades of research have firmly established that breathing particle pollution day in and day out can also be deadly. Across numerous seminal studies that looked at different groups of people living in different parts of the country, the results consistently showed a clear relationship between long-term exposure to particulate matter and mortality.[11]

Research using publicly available data on a cohort of more than one million adults in the U.S. reconfirmed that long-term exposure to $PM_{2.5}$ was associated with elevated risks of early death. The increased risk was primarily associated with death from cardiovascular and respiratory causes, including heart disease, stroke, influenza and pneumonia. Researchers also found a similar association between exposure to fine particle pollution and an increased risk of death from lung cancer among never-smokers.[12] Another study of 68.5 million Medicare-enrolled adults in the United States between 2000 and 2016 found a 6-8% increase in risk of all-cause mortality for every 10µg/m3 increase in the annual average $PM_{2.5}$.[13]

Research has also linked year-round exposure to particle pollution to a wide array of serious health effects at every stage of life, from conception through old age. Among individuals who are pregnant, fetuses and children, long-term particle pollution exposure is linked to:

- Increased risk of preterm birth and low birth weight;[14]
- Increased fetal and infant mortality;[15]
- Impaired neurological development and cognition;[16]
- Reduced lung development and impaired lung function in children;[17]
- Higher likelihood of children developing asthma.[18]

In adults, long-term particle pollution exposure is linked to:

- Increased risk from existing cardiovascular and respiratory disease, including a worsening of heart disease, atherosclerosis and COPD;[19,20]
- Higher likelihood of developing diabetes and subsequent complications;[21,22]
- Higher likelihood of getting lung cancer and of dying from it;[23]
- Impaired cognitive functioning and an increased risk of Parkinson's disease, Alzheimer's disease and other dementias later in life;[24,25]
- Increased risk of clinical depression and anxiety.[26]

The good news is that cleaning up particle pollution makes a difference. Research has shown a consistent relationship between decreasing $PM_{2.5}$ concentrations and improving respiratory health in children and reduced mortality of adults in communities that have reduced their levels of year-round particle pollution.[27,28]

Who is most at risk from particle pollution?

Anyone who lives where particle pollution levels are high is at risk. Some people face greater risk, however, based on their underlying health and other characteristics. [See the People at Risk section for more information about vulnerable groups] Research has shown that the groups at the greatest risk from particle pollution include:

- Pregnant people and fetuses;[29]
- Infants, children and people age 65 and older;[30]
- People with lung disease, especially asthma, but also people with COPD;[31]
- People with cardiovascular disease;[32]
- People with lung cancer;[33]
- People of color;[34]
- Current or former smokers;[35]
- People with low incomes;[36] and
- People who are obese or have diabetes.[37]

Health Effects of Ozone Pollution

Ground-level ozone, sometimes known as smog, is one of the most widespread and dangerous pollutants in the United States. Scientists have studied the effects of ozone on human health for decades. Hundreds of studies have confirmed that ozone harms people at levels currently found in many parts of the United States.

What is Ozone Pollution?

Ozone is a gas composed of molecules with three oxygen atoms. (The oxygen we need for life is made up of molecules with two oxygen atoms.) Ozone forms in the lower atmosphere when a combination of pollutants, usually nitrogen oxides (NO_x) and volatile organic compounds (VOCs), "cook" together in sunlight through a series of chemical reactions. NO_x and VOCs are produced primarily when fossil fuels such as gasoline, diesel, oil, natural gas or coal are burned or when solvents and some other chemicals evaporate. NO_x is emitted from power plants, motor vehicles and other sources of high-heat combustion. VOCs are emitted from motor vehicles, oil and gas operations, chemical plants, refineries, factories, gas stations, paint, consumer products and other sources.

If these ingredients are present under the right conditions, they react to form ozone. Sunlight is key, with higher temperatures increasing ozone production. Because the reactions take place in the atmosphere, ozone often shows up downwind of the sources of the original emissions, sometimes many miles from where it formed.

Ozone air pollution is sometimes called ground-level ozone, to distinguish it from the much higher-altitude stratospheric ozone layer that protects people from damaging ultraviolet rays from the sun.

What Can Ozone Pollution Do to Your Health?

Ozone gas is a powerful lung irritant. When it is inhaled into the lungs, it reacts with the delicate lining of the small airways, causing inflammation and other damage that can impact multiple body systems. Ozone exposure can also shorten lives.

Ozone has a serious effect on the respiratory system, both in the short term and over the course of years of exposure.

When ozone levels are high, many people experience breathing problems such as chest tightness, coughing and shortness of breath, often within hours of exposure. Even healthy young adults may experience respiratory symptoms and decreased lung function.[38]

Other breathing problems that have been tied to short-term exposure to ozone include:

- Worsening of symptoms, increased medication use, and increased emergency department visits and hospital admissions for people with asthma and COPD;[39]
- Susceptibility to respiratory infections such as pneumonia, resulting in an increased likelihood of emergency department visits and hospitalizations.[40]

Living with ozone pollution long term may cause lasting damage to respiratory health, including:

- Development of new cases of asthma in children;[41]
- Damage to the airways, leading to development of COPD;[42]
- Increased allergic response.[43]

The inflammation and systemic stress caused by short- and long-term exposure to ozone can also do damage to tissues, genes and proteins throughout the body, which can cause or worsen other disease conditions over time. These include:

- Potential increased risk of metabolic disorders, including glucose intolerance, hyperglycemia and diabetes;[44]
- Potential impact on the central nervous system, including brain inflammation, structural changes and increased risk of cognitive decline;[45,46]
- Increased likelihood of reproductive and developmental harm, including reduced fertility, pregnancy complications, preterm birth, stillbirth and low birth weight;[47,48]
- Possible cardiovascular effects.[49]

The damage ozone does to the body can be deadly. Recent research has affirmed earlier findings that short-term exposure to ozone, even at levels below the current standard, likely increases the risk of premature death, particularly for older adults.[50] There is also a growing body of evidence that long-term exposures to ambient ozone may be associated with an increased risk of cardiovascular and respiratory disease mortality.[51]

Who is Most at Risk from Ozone Pollution?

Anyone who spends time outdoors where ozone pollution levels are high may be at risk. Some people face a higher-than-average risk, however, because of their underlying health and other characteristics. [See the People at Risk section for more information about vulnerable groups.] Research has shown that the groups at greatest risk from ozone pollution include:

- Pregnant people and fetuses;[52]
- Children;
- Anyone 65 and older;
- People with existing lung disease such as asthma and COPD;
- People who work or exercise outdoors.[53]

Air Pollution and COVID-19

Both ozone and particle pollution can impact the functioning of the immune system and increase susceptibility to respiratory infections. Air pollution also increases the risk of chronic lung and cardiovascular diseases that put people at higher risk of poor outcomes from COVID-19. It should come as no surprise, then, that a growing body of research has found an association between exposure to even low levels of air pollution and an increased risk of severe illness and death from COVID-19. People living with chronic conditions, the elderly, people of color and those living in low-wealth communities are more vulnerable to poor outcomes.[54,55] A 2022 study in California found that people living in the most polluted areas of the state had a 20% higher risk of COVID infection and a 51% higher risk of death than residents in the least polluted areas.[56]

People at Risk

The health burden of air pollution is not evenly shared. Some people are more at risk of illness and death from air pollution than others. Several key factors affect an individual's level of risk:

- Exposure—Where someone lives, where they go to school and where they work makes a big difference in how much air pollution they breathe. In general, the higher the exposure, the greater the risk of harm.
- Susceptibility—Individuals who are pregnant and their fetuses, children, older adults and people living with chronic conditions, especially heart and lung disease, may be physically more susceptible to the health impacts of air pollution than other adults.
- Access to healthcare—Whether or not a person has health coverage, a healthcare provider, and access to linguistically and culturally appropriate health information may influence their overall health status and how they are impacted by environmental stressors like air pollution.
- Psychosocial stress—There is increasing evidence that non-physical stressors such as poverty, racial/ethnic discrimination and migration status can amplify the harmful effects of air pollution.

These risk factors are not mutually exclusive and often interact in ways that lead to significant health inequities among subgroups of the population. Taken all together, these high-risk categories account for a large proportion of the U.S. population.

People of color

Research has shown that people of color are more likely to be exposed to air pollution and more likely to suffer harm to their health from air pollution than white people.[57,58] Much of this inequity can be traced to the long history of systemic racism in the United States. Practices such as redlining, the discriminatory outlining of so-called "riskier" neighborhoods by mortgage lenders, institutionalized residential segregation in the 20th century, impairing the ability of many people of color to build wealth and limiting their mobility and political power. Over the years, decision-makers have found it easier to place sources of pollution, such as power plants, industrial facilities, landfills and highways, in economically disadvantaged communities of color than in more affluent, predominantly white neighborhoods. The resulting disproportionate exposure to air pollution has contributed to high rates of emergency department visits for asthma and other diseases.[59,60]

People of color are also more likely than white people to be living with one or more chronic conditions that make them more susceptible to the health impact of air pollution, including asthma and diabetes.[61]

People experiencing poverty

There is evidence that having low income or living in lower income areas puts people at increased risk from air pollution, although the correlation is not as strong as with race and ethnicity.[62,63] People living in poverty are more likely to live in close proximity to sources of pollution and have fewer resources to relocate than people with more financial security.[64] Poverty itself, along with the problems that beset many low-income communities, such as lack of safety, green space, and high-quality food access, have been associated with increased psychosocial distress and chronic stress, which in turn make people more vulnerable to pollution-related health effects.[65] People with low income also have lower rates of health coverage and less access to quality and affordable health care to provide relief to them when they get sick.

Dr. Aaron Levy works directly with those who are among the most vulnerable to poor air quality—children.

"The impacts of poor air quality start prenatally," says Levy, a pediatrician at Atrium Health's Levine Children's Hospital in Charlotte, North Carolina. "We know that women who are exposed to higher levels of poor air quality including particulate pollution have a greater risk of having babies born premature and low birth weight."

Levy is an advocate for integrating climate health into medical training. He says the impacts of air pollution on people's health should be as ingrained in education as the effects of cigarette smoke.

When physicians understand how climate change is related to patient care, they're better equipped to help protect and educate patients, he says. For example, Levy points to the Air Quality Index as a tool that people with asthma and other respiratory diseases can use to prepare for days when they may need to limit their outdoor exposure.

Levy says air quality has improved in recent years in the Charlotte area due to policy and behavioral changes but that continuing to push for cleaner energy and transportation is critical to healthier air. He adds that warming temperatures has been linked to longer and more intense allergy seasons, worsening the impacts of asthma.

"This past summer was a perfect example that we do not live in a vacuum," Levy says, noting that wildfire smoke from Canada reached the Carolinas. "We're all globally interconnected with the effects of climate change and we all play a role to help ensure every child grows up breathing healthy air."

Dr. Aaron Levy
Pediatrician at Atrium Health's Levine Children's Hospital
Charlotte, North Carolina

Children

Children are both more susceptible to harm from air pollution and more likely to be exposed than adults. The growth and development of a child's lungs and breathing ability start in utero and continue into early adulthood. Long-term exposure to particle pollution during pregnancy and early childhood has been linked to reduced lung growth and long-term exposure to ozone has been linked to increased potential for the development of asthma. The developing brain and heart may also be affected, with life-long consequences.[66] In addition, the body's defenses that help adults fight off infections are still developing in children. Children have more respiratory infections than adults, which also seems to increase their susceptibility to air pollution.[67]

Children breathe more rapidly and inhale more air relative to their size than do adults. They are more likely to spend time outdoors, running around, being active and breathing hard. Consequently, they are more exposed to polluted outdoor air than adults typically are.

Older adults

Much of the illness and premature death caused by air pollution occurs in older adults, who are at increased risk of harm for several reasons. As a person ages, the normal process of thinning and weakening of the lung tissue and the supporting muscle and bones of the ribcage results in diminishing lung function over time. The impairment that results from exposure to air pollutants then has an add-on effect, putting stress on the lungs and heart. Older people are also more likely to be living with chronic diseases, and there is evidence that co-existing chronic lung, heart or circulatory conditions may worsen following exposure to environmental pollutants.[68]

The strength of the immune system also declines with age, leaving older people at greater risk of contracting infections and less able to get them under control before they become serious. Because exposure to air pollution increases susceptibility to respiratory infections, it also increases the risk of severe illness and death in older adults.

People with underlying health conditions

For the millions of people in the U.S. living with illnesses such as asthma, COPD, diabetes, heart disease and lung cancer, exposure to air pollution places them at greater risk of harm to their health than those without disease. The cellular injury and systemic inflammation triggered by breathing ozone and particle pollution put additional stress on people's lungs, heart and other organs already compromised by disease. This can result in a worsening of symptoms, increased medication use, more frequent emergency department visits and hospitalizations, an overall reduced quality of life and far too often premature death.

Individuals who are pregnant and fetuses

Pregnancy is always a susceptible time for both the individual who is pregnant and the developing fetus. The pregnant body undergoes dramatic physiological changes in hormone levels, metabolism and circulation throughout months of gestation. The rapid and complex development of the fetus is a precisely timed and sequenced process. The inflammation and oxidative stress resulting from exposure to air pollution during pregnancy can increase the risk of hypertensive disorders, including preeclampsia, and lead to intrauterine inflammation and damage to the placenta that can disrupt the growth and development of the fetus. Fetal health may also be impacted in a number of ways by environmental contaminants that have been shown to cross the placenta.[69]

Exposure to both ozone and particle pollution during pregnancy is associated with premature birth, low birth weight and stillbirth. These risks are amplified when the individual who is pregnant is also at higher risk of health harm from air pollution in other ways, such living in poverty or having asthma.[70]

People with a smoking history

There is some recent evidence suggesting that current and former smokers are at greater risk of health harm from exposure to fine particle pollution compared with never-smokers. They are more likely to develop lung cancer and to die prematurely.[71] Smoking damages the lungs, heart, blood vessels and other organs.[72] This impairment leaves the person with a smoking history more vulnerable to the health impact of air pollution than a never-smoker.

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Recommendations for Action

We need action at every level to clean up air pollution and address climate change.

Federal Government

The Biden administration has made major progress on protecting public health and advancing environmental justice through their efforts to tackle the climate crisis and clean up the air. In "State of the Air" 2023, we called for the U.S. Environmental Protection Agency to finalize a suite of lifesaving clean air measures. Many of those policy measures are now in place, and other critical protections are well underway.

- **DONE: Updated national particle pollution standards.** EPA strengthened the annual fine particulate matter pollution standards from 12 µg/m3 to 9 µg/m3. While the standards aren't as strong as what the Lung Association called for, they'll still save lives and prevent significant health harms.
- **DONE: Rules to clean up methane and other air pollutants from the oil and gas industry.** EPA finalized rules to address leaks of methane from the oil and gas production process, like drilling operations. This is a crucial climate measure and will also reduce emissions of dangerous volatile organic compounds (VOCs). This is especially important for people living near oil and gas sites, making this final rule an environmental justice victory as well as a climate victory.
- **DONE: Stronger multi-pollutant standards for future cars.** EPA finalized a rule that will make future light- and medium-duty vehicles cleaner. The rule will help get more zero-emission vehicles on the road and make new gasoline-powered cars less polluting too.
- **DONE: Stronger carbon pollution limits on future trucks and buses.** EPA finalized a rule that will make future heavy-duty vehicles less polluting. The rule tightens emissions limits of the carbon pollution that drives climate change and will help drive a transition to zero-emission trucks and buses, a win for environmental justice.
- **IN PROGRESS: Implementing the largest-ever climate and clean energy investments passed in the Inflation Reduction Act.** This landmark law is the largest action the U.S. has ever taken to tackle climate change. Investments in clean electricity, electric vehicles, zero-emission appliances, air quality monitoring, environmental justice and more are rolling out.
- **IN PROGRESS: Addressing wildfires.** The Biden Administration created a Wildland Fire Mitigation and Management Commission, which released a report with recommendations for federal action to address the nation's accelerated and climate-driven wildfire crisis. We're pushing for many of those recommendations to be adopted.

We applaud this progress. Now, we call for President Biden and EPA to build on these successes with additional final rules to clean up air pollution, and on Congress to help ensure these protections are funded, implemented and enforced. Additional actions needed include:

- **EPA must set stronger national standards for ozone**. The research shows that a standard of no higher than 60 parts per billion would protect health. Stronger standards would drive cleanup of polluting sources nationwide and enable families across the country to be better informed about when local air quality may put their health at risk. In 2023, EPA announced a major delay by essentially starting over in their work to update the standard. There is no time to waste in moving forward. Take action at Lung.org/sota-petition.

- **EPA must clean up power plant pollution.** EPA must finalize rules to limit carbon emissions on coal and gas-fired power plants. These measures will help address climate change and provide important reductions in other pollutants at the same time. EPA must also finalize tighter limits on mercury and other toxic emissions from coal- and oil-fired power plants, and strengthen monitoring requirements to help ensure that cleanup happens quickly.
- **Congress must defend the Clean Air Act and its protections and pass funding bills that adequately invest in EPA.** There are partisan efforts underway to undermine federal clean air protections and the Clean Air Act itself. Congress must safeguard the Clean Air Act and the administration's efforts to clean up deadly air pollution and climate pollution. Congress must also increase funding for EPA to set and enforce these lifesaving rules and to provide assistance to state, local and Tribal air agencies to monitor and clean up harmful air pollution.

State, Territorial and Tribal Governments

Not only can states, territories and Tribes strengthen clean air protections, they are crucial to the success of EPA's stronger standards, and they can reap the benefits of Inflation Reduction Act investments.

- **Implement EPA's new clean air protections.** EPA's final rules require work from states, territories and Tribes to ensure their residents see the benefit of stronger air pollution standards. This includes cleaning up areas where the air violates the new particle pollution standards, writing plans to clean up carbon from the power sector and implementing the recently finalized limits on methane.
- **Set a clean or renewable electricity standard or clean peak** standard that phases out the use of coal, oil, methane gas (often called natural gas) and other combustion energy sources and replaces it with wind, solar, geothermal and tidal and other non-combustion forms of electricity. Do not allow for the increased use of biomass or municipal solid waste for electricity because of their contributions to dangerous air pollution.
- **Prioritize deployment of clean energy production.** In order to hit clean energy goals, it is imperative for states, territories and Tribes to prioritize major deployment of non-combustion clean power as well as battery energy storage.
- **Leverage Inflation Reduction Act funding** available to state, territorial and Tribal governments to reduce emissions, including reducing air pollution at ports, investing in zero-emission school buses, electrifying buildings, expanding electric vehicle infrastructure, and improving air quality monitoring. Ensure that environmental justice communities that have long borne the brunt of pollution impacts are prioritized for investment.
- **States: Use Clean Air Act authority to adopt the California zero-emissions standards for cars and trucks.** These include California's Low-Emission Vehicle criteria pollutant and greenhouse gas regulations; Zero-Emission Vehicle regulations; and Advanced Clean Trucks regulations.

Evelyn Mateos racks up around 1,000 miles each month driving between her home in Orange County, California and Las Vegas, where she lived for a few years until recently.

"In Southern California, we're built on cars. We drive pretty much everywhere," she says.

But a proposed high-speed electric train connecting Las Vegas and suburban San Bernardino County near Los Angeles would give people another option for traveling. Construction on the 218-mile Brightline West project is expected to start this year.

The zero-emission system is projected to lower greenhouse gasses by more than 400,000 tons of CO2 each year and reduce annual vehicle miles traveled by more than 700 million, according to Brightline[iii]. Traveling at speeds of up to 200 miles an hour, the trains would be nearly twice as fast as driving.

Mateos says she believes many people in Southern California care about reducing pollution from vehicles and that an alternative to driving or flying to Las Vegas would be appealing.

"Not having to put those miles on your car and risk getting stuck in traffic could be exciting for Californians," she says. "It could potentially get many cars off the road."

Evelyn Mateos
Orange County, CA

Local Governments

Local governments have the power to help ensure that city and county operations are zero-emission and that residents have the ability to choose zero-emission forms of transportation and electricity. These actions must benefit the communities most impacted by unhealthy air.

- **Adopt a climate action plan.** Reduce city- and county-wide emissions by supporting walking, biking and transit and zero-emission vehicle infrastructure and ensuring that building and parking policies support these goals. Include measures to address the impacts of climate change on residents, including health impacts. Under the Inflation Reduction Act, municipalities can opt in to get federal planning grants to reduce climate pollution.
- **Purchase zero-emission fleet vehicles.** Commit to purchasing zero-emission garbage and recycling trucks, transit buses, school buses and other vehicles. Under the Inflation Reduction Act, there are tax credits for the purchase of new and used electric vehicles that are available through up-front direct pay, as opposed to in a tax filing. EPA also has a Clean School Bus Program that has provided several rounds of rebates and grant programs to eligible entities purchasing zero-emission school buses.
- **Establish purchasing goals for renewable, non-combustion electricity.** Power city and county operations with truly clean sources of electricity like wind, solar, geothermal or tidal. The Inflation Reduction Act also included direct-pay tax credits for the purchase of renewable energy.

iii https://wwwbrightlinewest.com/overview/project

Individuals

You can take action to protect yourself and your family from the dangers of air pollution. Regardless of its grade or ranking in this report, any community can experience days with unhealthy levels of air pollution. Some simple precautions will reduce your risk:

- **Check daily air pollution forecasts in your area at airnow.gov.** The color-coded forecasts let you know when the air is unhealthy in your community. When the air is bad, move your exercise plans and other activities indoors. If you live in a fire-prone area, learn more about using N-95 masks and creating a clean room inside your home with our wildfire resources at Lung.org/wildfire.
- **Reduce your own contributions to air pollution.** Prioritize walking, biking and clean public transit over diesel or gasoline-powered vehicles. Conserve electricity and purchase your power from clean, non-combustion sources if you can. When heating and cooling, adjusting your thermostat just one degree can save you money and reduce energy use. Don't burn leaves or trash and avoid burning wood whenever possible.
- **Consider taking advantage of tax incentives to reduce emissions from your home and vehicle.** One of the best ways to reduce pollution is to switch from vehicles and appliances that burn fuel—like gasoline-powered cars and natural gas stoves and furnaces—to zero-emission versions that run on electricity. Under the Inflation Reduction Act passed in 2022, you may be able to get tax credits for buying a new or used electric vehicle or for upgrading your home with efficient, zero-emissions appliances like induction stoves or heat pumps. Learn more here.
- **Show up at the local level.** In addition to taking action with the Lung Association, you can advocate for air quality and climate policy change in your community. Get engaged with local policymakers and civic organizations. Learn about local advocacy opportunities. Show up at public hearings and meet with your local leaders to share why cleaning up air pollution and addressing climate change matters to you and your community. You are the best advocate for action in your community.

Rohan Arora watched his father coughing at home and relying more on his inhaler. Smog and other air pollution he encountered while commuting to and working in Washington, D.C. aggravated his asthma to the point that sleeping became difficult.

Seeing the toll that poor air quality took on his father inspired Arora to make environmental health and climate activism his passion.

"When you see it in your own household, it becomes real," Arora says. "It's not something in the news, it's not hypothetical – you see it happening in front of you."

Arora is the founder and executive director of The Community Check-Up, a national environmental health organization that empowers youth to be changemakers in their communities. He says grassroots efforts are instrumental in driving change and that young people can play a big role by discussing climate issues at home, attending town halls, and talking with local representatives.

Schools can also help educate on environmental and climate topics, he says, by integrating them into the curriculum so that students gain the skills needed to understand the most pressing challenges and instill change.

"Young people have a lot of energy," Arora says, "and that's what this movement really needs."

Rohan Arora
Executive Director of The Community Check-Up

Understanding Grades and Tables

*See **Methodology** for a full explanation of data sources and calculations made for state grades.*

Notes for state grades tables

1. Not all counties have monitors for either ozone or particle pollution. If a county does not have any monitoring data for either pollutant, that county's name is not on the list in these tables. The decision about siting monitors in a county is made by the state and the U.S. Environmental Protection Agency, not by the American Lung Association.
2. **INC** (Incomplete) indicates that monitoring data is available for at least one year in that county, but not all three years.
3. **DNC** (Data Not Collected) indicates that data on that particular pollutant was not collected in that county during the three years covered in the report.
4. The **Weighted Average (Wgt. Avg.)** was derived by adding the three years of individual level data (2020-2022), multiplying the sums of each level by the assigned standard weights (i.e., 1=orange, 1.5=red, 2.0=purple and 2.5=maroon) and calculating the average. Grades are assigned based on the weighted averages as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
5. The **Design Value** is the calculated concentration of a pollutant based on the annual National Ambient Air Quality Standard for PM2.5, which is 9 µg/m3. Counties with design values of 9.0 or lower received a grade of "Pass" for Annual $PM_{2.5}$. Counties with design values of 9.1 or higher received a grade of "Fail."

Notes for at-risk groups tables

1. Adding across rows does not produce valid estimates. Adding the at-risk categories (asthma, COPD, poverty, etc.) will double-count people who fall into more than one category.
2. **Total Population** is based on 2022 U.S. Census and represents the at-risk populations in counties with ozone or $PM_{2.5}$ pollution monitors; it does not represent the entire state's sensitive populations.
3. Those **18 & under** and **65 & over** are vulnerable to ozone and $PM_{2.5}$. Do not use them as population denominators for disease estimates—that will lead to incorrect estimates.
4. **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people in that age group who had asthma in 2022 based on the state rates, when available, or national rates when not (Behavioral Risk Factor Surveillance System, or BRFSS), applied to county population estimates (U.S. Census).
5. **Adult asthma** estimates are for those 18 years of age and older and represent the estimated number of people in that age group who had asthma during 2022 based on state rates (BRFSS) applied to county population estimates (U.S. Census).
6. **COPD** estimates are for adults 18 and over who had ever been diagnosed with chronic obstructive pulmonary disease, which includes chronic bronchitis and emphysema, based on state rates (BRFSS) applied to county population estimates (U.S. Census).
7. **Lung cancer** estimates are for all ages and represent the estimated number of people newly diagnosed with lung cancer in 2020 based on state rates (StateCancerProfiles.gov) applied to county population estimates (U.S. Census).
8. **Cardiovascular (CV) disease** estimates are for adults 18 and over who have been diagnosed within their lifetime, based on state rates (BRFSS) applied to county population estimates (U.S. Census). CV disease includes coronary heart disease, stroke and heart attack.
9. **Pregnancy** estimates are for females 18-49 and based on state rates of pregnancies resulting in live births applied to population estimates (U.S. Census).
10. **Poverty** estimates include all ages and come from the U.S. Census Bureau's Small Area Income and Poverty Estimates program. The estimates are derived from a model using estimates of income or poverty from the Annual Social and Economic Supplement and the Current Population Survey, 2021. Puerto Rico poverty estimates come from the U.S. Census Bureau's American Community Survey, 2018-2022.
11. **People of color** are defined as anyone Hispanic or as non-Hispanic Black, Asian, American Indian/Alaska Native, Native Hawaiian and Other Pacific Islander, or two or more races, based on 2022 county population estimates (U.S Census). Puerto Rico race and ethnicity estimates come from the U.S. Census Bureau's American Community Survey, 2018-2022.
12. Based on a request from Connecticut, the Census Bureau shifted from providing population estimates by county to county-equivalent Planning Regions for the state starting with 2022 data. As air quality data continues to be county-based and Planning Regions are incompatible with historic Connecticut counties, Census Bureau population estimates from 2021 are used in this year's report. Disease rates are still from the latest year available.

Table 1 Populations at Risk by Grade and by Pollutant

People at Risk from Short-Term Particle Pollution (Daily $PM_{2.5}$)

	Chronic Diseases					Age Groups						
In Counties Where the Grades Were:	Adult Asthma	Pediatric Asthma	COPD	Lung Cancer	CV Disease	Under 18	65 and Over	Pregnancies	Poverty	People of Color	Total Population	Number of Counties
Grade A (0.0)	3,970,783	738,191	2,740,423	24,796	3,702,636	10,075,706	9,086,964	535,499	6,238,636	20,133,803	49,179,066	189
Grade B (0.3-0.9)	5,079,528	1,053,752	3,343,322	32,211	4,555,333	14,142,191	10,582,970	730,466	8,024,747	30,112,204	64,840,472	179
Grade C (1.0-2.0)	3,183,931	663,488	2,148,425	20,680	2,882,999	9,264,054	6,450,259	479,719	5,301,718	19,333,435	41,192,333	101
Grade D (2.1-3.2)	579,875	110,798	347,307	3,318	479,497	1,544,532	1,159,404	81,049	882,683	2,663,062	7,059,894	28
Grade F (3.3+)	4,800,925	925,749	2,670,002	23,543	3,851,062	14,389,766	10,219,595	711,081	7,817,092	36,134,746	65,044,038	112
National Population in Counties with $PM_{2.5}$ Monitors	17,931,126	3,553,429	11,467,944	106,610	15,769,181	50,392,736	38,182,655	2,587,275	28,764,843	110,363,013	231,622,263	636

People at Risk from Year-Round Particle Pollution (Annual $PM_{2.5}$)

	Chronic Diseases					Age Groups						
In Counties Where the Grades Were:	Adult Asthma	Pediatric Asthma	COPD	Lung Cancer	CV Disease	Under 18	65 and Over	Pregnancies	Poverty	People of Color	Total Population	Number of Counties
Pass	9,222,608	1,812,844	5,973,467	55,600	8,048,151	24,326,263	19,491,673	1,265,020	13,213,602	46,641,380	114,105,251	404
Fail	6,570,024	1,328,951	4,177,859	38,337	5,837,318	20,443,163	13,942,272	1,027,505	11,961,128	52,027,008	90,697,300	119
National Population in Counties with $PM_{2.5}$ Monitors	17,931,126	3,553,429	11,467,944	106,610	15,769,181	50,392,736	38,182,655	2,587,275	28,764,843	110,363,013	231,622,263	636

People at Risk from Ozone

	Chronic Diseases				Age Groups						
In Counties Where the Grades Were:	Adult Asthma	Pediatric Asthma	COPD	CV Disease	Under 18	65 and Over	Pregnancies	Poverty	People of Color	Total Population	Number of Counties
Grade A (0.0)	3,972,552	732,003	2,837,241	3,876,249	10,254,455	9,804,844	530,474	6,128,907	18,155,334	50,328,508	270
Grade B (0.3-0.9)	2,915,199	628,750	2,056,559	2,734,650	8,193,121	6,338,228	402,750	4,366,591	14,661,103	37,020,487	184
Grade C (1.0-2.0)	3,178,504	620,749	2,007,272	2,691,177	8,291,092	6,346,079	429,708	4,277,158	15,240,131	38,497,671	123
Grade D (2.1-3.2)	1,500,563	280,480	966,305	1,317,279	3,869,457	3,157,808	207,931	2,285,164	8,268,388	18,562,314	50
Grade F (3.3+)	7,422,719	1,480,413	4,469,660	6,338,201	22,554,216	15,503,442	1,132,845	12,236,035	55,607,758	100,627,376	125
National Population in Counties with Ozone Monitors	19,079,014	3,761,012	12,391,695	17,036,793	53,387,344	41,353,243	2,714,245	29,423,476	112,270,906	246,076,336	775

Table 2a People at Risk in 25 U.S. Cities Most Polluted by Short-Term Particle Pollution (Daily $PM_{2.5}$)

2024 Rank	Metropolitan Statistical Areas	Total Population	Under 18	65 and Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	People of Color	Poverty
1	Bakersfield, CA	916,108	260,354	107,854	14,596	56,417	28,379	300	42,186	9,535	637,251	158,995
2	Fresno-Madera-Hanford, CA	1,328,427	364,850	170,959	20,454	83,063	42,575	435	63,876	14,004	963,186	244,173
3	Fairbanks, AK	95,356	22,335	11,980	1,558	7,969	3,736	48	5,422	1,264	30,210	7,117
4	Eugene-Springfield, OR	382,353	66,030	81,012	4,589	36,325	21,129	159	30,704	3,658	75,815	56,320
5	Visalia, CA	477,544	141,291	56,443	7,921	28,949	14,655	156	21,831	5,048	353,320	86,096
6	Reno-Carson City-Fernley, NV	670,258	134,060	131,583	9,590	53,609	39,220	330	52,843	6,532	246,590	68,783
7	San Jose-San Francisco-Oakland, CA	9,482,708	1,961,875	1,573,978	109,986	653,728	359,039	3,101	546,284	100,209	6,099,825	920,277
8	Redding-Red Bluff, CA	246,175	54,297	52,444	3,044	16,849	10,066	80	15,846	2,248	64,216	34,523
9	Sacramento-Roseville, CA	2,701,808	594,397	462,916	33,323	183,342	101,602	881	155,757	28,352	1,347,234	301,699
10	Chico, CA	207,303	41,519	38,407	2,328	14,390	7,874	68	12,254	2,266	66,108	37,152
11	Los Angeles-Long Beach, CA	18,372,485	3,969,521	2,794,005	222,539	1,248,866	671,276	6,005	1,011,872	198,882	13,051,016	2,271,941
12	Yakima, WA	257,001	74,062	37,021	5,414	20,057	9,348	107	13,306	2,600	154,133	41,877
13	Seattle-Tacoma, WA	4,982,019	1,019,132	787,087	74,496	434,665	202,311	2,078	287,133	54,671	1,904,537	431,909
14	Missoula, MT	121,041	21,492	20,930	1,344	11,932	6,031	49	7,815	1,454	14,034	10,920
15	Spokane-Spokane Valley-Coeur d'Alene, WA-ID	781,497	167,793	145,170	12,129	67,336	34,360	322	50,104	8,122	122,146	89,605
16	Phoenix-Mesa, AZ	5,069,600	1,130,197	852,129	91,111	388,402	253,096	1,843	353,875	55,202	2,370,614	547,851
17	Boise City-Mountain Home-Ontario, ID-OR	899,574	209,972	145,704	14,641	76,608	40,853	360	57,746	10,333	200,133	83,434
18	San Diego-Chula Vista-Carlsbad, CA	3,276,208	679,626	507,032	38,101	224,682	119,040	1,073	180,364	35,634	1,854,933	338,482
19	Salt Lake City-Provo-Orem, UT	2,774,686	770,595	304,302	56,642	221,082	85,938	555	125,539	37,945	683,083	207,439
20	Denver-Aurora, CO	3,663,515	766,328	525,621	53,443	316,841	145,696	1,307	191,864	40,359	1,325,547	314,518
21	Logan, UT-ID	155,362	45,129	16,455	3,300	12,120	4,694	34	6,747	2,235	25,377	17,801
21	Portland-Vancouver-Salem, OR-WA	3,285,859	672,210	557,059	47,229	299,024	160,562	1,369	226,870	32,484	953,505	341,525
23	Las Vegas-Henderson, NV	2,377,723	524,255	383,739	37,504	185,598	128,439	1,173	169,807	25,159	1,436,207	312,922
24	Fargo-Wahpeton, ND-MN	281,593	63,392	39,200	3,942	22,838	11,143	142	16,294	3,895	45,000	31,123
24	Salinas, CA	432,858	109,977	65,801	6,166	27,993	15,073	142	22,934	4,352	311,103	50,699

Notes:

Cities are ranked using the highest weighted average for any county within that Combined Metropolitan Statistical Area or Metropolitan Statistical Area.

Adding across rows does not produce valid estimates. Adding the disease categories (asthma, COPD, etc.) will double-count people who fall into more than one category.

Table 2b People at Risk in 25 U.S. Cities Most Polluted by Year-Round Particle Pollution (Annual $PM_{2.5}$)

2024 Rank	Metropolitan Statistical Areas	Total Population	Under 18	65 and Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	People of Color	Poverty
1	Bakersfield, CA	916,108	260,354	107,854	14,596	56,417	28,379	300	42,186	9,535	637,251	158,995
2	Visalia, CA	477,544	141,291	56,443	7,921	28,949	14,655	156	21,831	5,048	353,320	86,096
3	Fresno-Madera-Hanford, CA	1,328,427	364,850	170,959	20,454	83,063	42,575	435	63,876	14,004	963,186	244,173
4	Eugene-Springfield, OR	382,353	66,030	81,012	4,589	36,325	21,129	159	30,704	3,658	75,815	56,320
5	San Jose-San Francisco-Oakland, CA	9,482,708	1,961,875	1,573,978	109,986	653,728	359,039	3,101	546,284	100,209	6,099,825	920,277
6	Los Angeles-Long Beach, CA	18,372,485	3,969,521	2,794,005	222,539	1,248,866	671,276	6,005	1,011,872	198,882	13,051,016	2,271,941
7	Sacramento-Roseville, CA	2,701,808	594,397	462,916	33,323	183,342	101,602	881	155,757	28,352	1,347,234	301,699
8	Medford-Grants Pass, OR	309,374	61,544	75,565	4,277	28,473	18,150	129	27,212	2,498	61,158	42,920
9	Phoenix-Mesa, AZ	5,069,600	1,130,197	852,129	91,111	388,402	253,096	1,843	353,875	55,202	2,370,614	547,851
10	Fairbanks, AK	95,356	22,335	11,980	1,558	7,969	3,736	48	5,422	1,264	30,210	7,117
11	Indianapolis-Carmel-Muncie, IN	2,524,790	595,508	387,143	47,972	212,621	163,482	1,568	191,157	30,293	702,959	284,089
12	Yakima, WA	257,001	74,062	37,021	5,414	20,057	9,348	107	13,306	2,600	154,133	41,877
13	Detroit-Warren-Ann Arbor, MI	5,368,296	1,139,847	963,354	77,694	508,425	374,782	2,808	404,950	55,181	1,775,165	732,973
14	Chico, CA	207,303	41,519	38,407	2,328	14,390	7,874	68	12,254	2,266	66,108	37,152
14	Spokane-Spokane Valley-Coeur d'Alene, WA-ID	781,497	167,793	145,170	12,129	67,336	34,360	322	50,104	8,122	122,146	89,605
16	Houston-The Woodlands, TX	7,533,096	1,927,437	938,248	122,470	437,898	309,097	3,062	487,995	97,505	4,977,039	1,054,038
17	El Centro, CA	178,713	50,235	24,582	2,816	11,096	5,791	59	8,774	1,732	162,416	36,354
18	Reno-Carson City-Fernley, NV	670,258	134,060	131,583	9,590	53,609	39,220	330	52,843	6,532	246,590	68,783
19	Pittsburgh-New Castle-Weirton, PA-OH-WV	2,631,213	488,237	571,325	47,991	220,042	168,285	1,367	240,409	25,479	392,439	294,066
20	Las Vegas-Henderson, NV	2,377,723	524,255	383,739	37,504	185,598	128,439	1,173	169,807	25,159	1,436,207	312,922
20	Kansas City-Overland Park-Kansas City, MO-KS	2,545,616	584,469	411,249	45,921	209,138	149,179	1,444	181,445	29,818	694,254	271,520
22	Cincinnati-Wilmington-Maysville, OH-KY-IN	2,323,945	530,322	390,773	39,309	204,292	173,738	1,448	196,221	25,910	507,423	269,946
22	Chicago-Naperville, IL-IN-WI	9,806,184	2,133,205	1,603,748	102,751	698,287	459,008	5,279	652,054	102,567	4,695,471	1,097,326
24	Augusta-Richmond County, GA-SC	624,083	140,912	108,654	10,531	45,615	36,153	328	46,050	6,799	294,989	90,576
25	Corpus Christi-Kingsville-Alice, TX	526,006	126,558	85,073	8,040	31,317	23,498	214	38,183	6,371	372,711	95,416
25	Oklahoma City-Shawnee, OK	1,532,913	364,136	230,454	35,680	144,715	91,527	863	126,481	19,276	573,447	215,755

Notes:

Cities are ranked using the highest design value for any county within that Combined Metropolitan Statistical Area or Metropolitan Statistical Area.

Adding across rows does not produce valid estimates. Adding the disease categories (asthma, COPD, etc.) will double-count people who have been diagnosed with more than one disease.

Table 2c People at Risk in 25 Most Ozone-Polluted Cities

2024 Rank	Metropolitan Statistical Areas	Total Population	Under 18	65 and Over	Pediatric Asthma	Adult Asthma	COPD	CV Disease	Pregnancies	People of Color	Poverty
1	Los Angeles-Long Beach, CA	18,372,485	3,969,521	2,794,005	222,539	1,248,866	671,276	1,011,872	198,882	13,051,016	2,271,941
2	Visalia, CA	477,544	141,291	56,443	7,921	28,949	14,655	21,831	5,048	353,320	86,096
3	Bakersfield, CA	916,108	260,354	107,854	14,596	56,417	28,379	42,186	9,535	637,251	158,995
4	Fresno-Madera-Hanford, CA	1,328,427	364,850	170,959	20,454	83,063	42,575	63,876	14,004	963,186	244,173
5	Phoenix-Mesa, AZ	5,069,600	1,130,197	852,129	91,111	388,402	253,096	353,875	55,202	2,370,614	547,851
6	Denver-Aurora, CO	3,663,515	766,328	525,621	53,443	316,841	145,696	191,864	40,359	1,325,547	314,518
7	Sacramento-Roseville, CA	2,701,808	594,397	462,916	33,323	183,342	101,602	155,757	28,352	1,347,234	301,699
8	San Diego-Chula Vista-Carlsbad, CA	3,276,208	679,626	507,032	38,101	224,682	119,040	180,364	35,634	1,854,933	338,482
9	Salt Lake City-Provo-Orem, UT	2,774,686	770,595	304,302	56,642	221,082	85,938	125,539	37,945	683,083	207,439
10	Houston-The Woodlands, TX	7,533,096	1,927,437	938,248	122,470	437,898	309,097	487,995	97,505	4,977,039	1,054,038
11	Las Vegas-Henderson, NV	2,377,723	524,255	383,739	37,504	185,598	128,439	169,807	25,159	1,436,207	312,922
12	San Jose-San Francisco-Oakland, CA	9,482,708	1,961,875	1,573,978	109,986	653,728	359,039	546,284	100,209	6,099,825	920,277
13	Dallas-Fort Worth, TX-OK	8,449,932	2,088,213	1,067,016	133,067	499,117	353,049	557,626	110,300	4,671,878	879,392
13	New York-Newark, NY-NJ-CT-PA	23,060,028	4,823,603	3,992,690	370,126	1,851,337	981,963	1,506,612	248,085	12,253,432	2,841,933
15	El Paso-Las Cruces, TX-NM	1,095,532	277,026	151,301	19,324	68,237	44,422	69,847	13,503	939,748	230,904
16	Fort Collins, CO	366,778	66,337	64,064	4,626	32,806	15,663	20,787	4,126	70,080	39,357
17	Chicago-Naperville, IL-IN-WI	9,806,184	2,133,205	1,603,748	102,751	698,287	459,008	652,054	102,567	4,695,471	1,097,326
18	El Centro, CA	178,713	50,235	24,582	2,816	11,096	5,791	8,774	1,732	162,416	36,354
19	Reno-Carson City-Fernley, NV	670,258	134,060	131,583	9,590	53,609	39,220	52,843	6,532	246,590	68,783
20	Colorado Springs, CO	765,424	174,067	110,470	12,139	64,695	29,770	39,242	7,975	247,716	63,373
21	Albuquerque-Santa Fe-Las Vegas, NM	1,165,564	233,528	233,668	22,628	97,379	53,616	84,519	11,774	730,069	159,271
22	Redding-Red Bluff, CA	246,175	54,297	52,444	3,044	16,849	10,066	15,846	2,248	64,216	34,523
23	San Luis Obispo-Paso Robles, CA	282,013	47,941	63,001	2,688	20,460	11,858	18,774	2,828	92,649	31,956
24	San Antonio-New Braunfels-Pearsall, TX	2,673,157	647,578	368,120	41,146	158,172	113,406	180,383	34,270	1,816,116	374,553
25	Grand Rapids-Kentwood-Muskegon, MI	1,432,693	324,127	236,010	22,094	133,627	94,268	101,053	15,084	312,609	154,060

Notes:

Cities are ranked using the highest weighted average for any county within that Combined Metropolitan Statistical Area or Metropolitan Statistical Area.

Adding across rows does not produce valid estimates. Adding the disease categories (asthma, COPD, etc.) will double-count people who have been diagnosed with more than one disease.

Table 3a Cleanest U.S. Cities for Short-Term Particle Pollution (Daily $PM_{2.5}$)

Metropolitan Statistical Area	Population
Bangor, ME	153,704
Bloomington-Bedford, IN	206,449
Burlington-Fort Madison-Keokuk, IA-IL-MO	101,251
Cape Coral-Fort Myers-Naples, FL	1,261,786
Champaign-Urbana, IL	223,265
Charlottesville, VA	223,825
Cleveland-Indianola, MS	54,181
College Station-Bryan, TX	277,824
Dayton-Springfield-Kettering, OH	1,085,335
Erie-Meadville, PA	350,359
Fayetteville-Springdale-Rogers, AR	576,403
Florence, SC	199,119
Gadsden, AL	103,088
Greenville-Kinston-Washington, NC	272,447
Gulfport-Biloxi, MS	420,782
Harrisonburg-Staunton, VA	263,331
Hickory-Lenoir-Morganton, NC	368,347
Hot Springs-Malvern, AR	133,292
Houma-Thibodaux, LA	200,656
Johnson City-Kingsport-Bristol, TN-VA	521,528
Kahului-Wailuku-Lahaina, HI	164,351
Kokomo-Peru, IN	119,248
Lafayette-West Lafayette-Frankfort, IN	259,295
Lake Charles-Jennings, LA	239,346
Lansing-East Lansing, MI	540,870
Lima-Van Wert-Celina, OH	218,180
Lincoln-Beatrice, NE	364,031
Lynchburg, VA	263,613
Madison-Janesville-Beloit, WI	916,914
Midland-Odessa, TX	338,085
Mobile-Daphne-Fairhope, AL	672,968
Montgomery-Selma-Alexander City, AL	473,370
Morgantown-Fairmont, WV	196,993
New Orleans-Metairie-Hammond, LA-MS	1,485,510
North Port-Sarasota, FL	1,129,384
Orlando-Lakeland-Deltona, FL	4,428,098
Owensboro, KY	121,348
Palm Bay-Melbourne-Titusville, FL	630,693
Parkersburg-Marietta-Vienna, WV-OH	147,332
Pensacola-Ferry Pass, FL-AL	559,812
Ponce-Yauco-Coamo, PR	353,672
Portland-Lewiston-South Portland, ME	674,599
Rochester-Batavia-Seneca Falls, NY	1,171,569
Rockford-Freeport-Rochelle, IL	430,320
Rocky Mount-Wilson-Roanoke Rapids, NC	287,166
Saginaw-Midland-Bay City, MI	374,825
Salisbury-Cambridge, MD-DE	471,758
San Juan-Bayamón, PR	2,315,079
Scottsboro-Fort Payne, AL	124,889
Tuscaloosa, AL	277,494
Urban Honolulu, HI	995,638
Virginia Beach-Norfolk, VA-NC	1,898,944
Waterloo-Cedar Falls, IA	167,889
Wilmington, NC	300,658

Note:
Monitors in these cities reported no days when $PM_{2.5}$ levels reached the unhealthful range using the Air Quality Index based on the 2012 NAAQS.

Table 3b Top 25 Cleanest U.S. Cities for Year-Round Particle Pollution (Annual $PM_{2.5}$)

2024 Rank	Design Value	Metropolitan Statistical Area	Population
1	3.7	Urban Honolulu, HI	995,638
2	3.8	Casper, WY	79,601
3	4.0	Kahului-Wailuku-Lahaina, HI	164,351
4	4.4	Wilmington, NC	300,658
5	4.5	Bangor, ME	153,704
6	4.9	Cheyenne, WY	100,723
7	5.1	Duluth, MN-WI	291,323
8	5.5	Colorado Springs, CO	765,424
9	5.6	Anchorage, AK	400,470
9	5.6	St. George, UT	197,680
11	5.7	Elmira-Corning, NY	174,025
12	5.8	Asheville-Marion-Brevard, NC	554,180
12	5.8	Grand Junction, CO	158,636
12	5.8	Lubbock-Plainview-Levelland, TX	381,271
12	5.8	Saginaw-Midland-Bay City, MI	374,825
16	5.9	Amarillo-Pampa-Borger, TX	313,204
16	5.9	Lynchburg, VA	263,613
16	5.9	Salisbury-Cambridge, MD-DE	471,758
19	6.0	Rochester-Austin, MN	268,213
20	6.1	Greenville-Kinston-Washington, NC	272,447
20	6.1	Syracuse-Auburn, NY	728,631
22	6.2	Grand Island, NE	76,333
23	6.4	Lima-Van Wert-Celina, OH	218,180
23	6.4	Lincoln-Beatrice, NE	364,031
25	6.5	Johnson City-Kingsport-Bristol, TN-VA	521,528
25	6.5	Portland-Lewiston-South Portland, ME	674,599
25	6.5	Rochester-Batavia-Seneca Falls, NY	1,171,569

Notes:
Cities are ranked by using the highest design value for any county within that metropolitan area.

Table 3c Cleanest U.S. Cities for Ozone Air Pollution

Metropolitan Statistical Area	Population
Augusta-Richmond County, GA-SC	624,083
Bangor, ME	153,704
Bellingham, WA	230,677
Blacksburg-Christiansburg, VA	165,812
Bowling Green-Glasgow, KY	240,906
Brownsville-Harlingen-Raymondville, TX	445,351
Brunswick, GA	114,442
Burlington-South Burlington-Barre, VT	287,569
Cape Coral-Fort Myers-Naples, FL	1,261,786
Charleston-Huntington-Ashland, WV-OH-KY	763,796
Charleston-North Charleston, SC	830,529
Charlottesville, VA	223,825
Clarksville, TN-KY	336,605
Cleveland-Indianola, MS	54,181
Columbia-Moberly-Mexico, MO	263,686
Columbus-Auburn-Opelika, GA-AL	504,883
Crestview-Fort Walton Beach-Destin, FL	299,786
Des Moines-Ames-West Des Moines, IA	910,923
Duluth, MN-WI	291,323
Eau Claire-Menomonie, WI	219,295
Elmira-Corning, NY	174,025
Erie-Meadville, PA	350,359
Fairbanks, AK	95,356
Florence, SC	199,119
Gadsden, AL	103,088
Gainesville-Lake City, FL	420,190
Greensboro--Winston-Salem--High Point, NC	1,720,328
Harrisonburg-Staunton, VA	263,331
Hickory-Lenoir-Morganton, NC	368,347
Jackson-Vicksburg-Brookhaven, MS	660,563
Jacksonville-St. Marys-Palatka, FL-GA	1,807,412
Jefferson City, MO	150,350
Johnson City-Kingsport-Bristol, TN-VA	521,528
La Crosse-Onalaska, WI-MN	139,094
Lansing-East Lansing, MI	540,870
Laredo, TX	267,780
Lincoln-Beatrice, NE	364,031
Mayagüez-San Germán, PR	217,906
Missoula, MT	121,041
Mobile-Daphne-Fairhope, AL	672,968
Monroe-Ruston, LA	250,998
Montgomery-Selma-Alexander City, AL	473,370
Morgantown-Fairmont, WV	196,993
Myrtle Beach-Conway, SC-NC	600,887
New Bern-Morehead City, NC	191,868
North Port-Sarasota, FL	1,129,384
Orlando-Lakeland-Deltona, FL	4,428,098
Palm Bay-Melbourne-Titusville, FL	630,693
Panama City, FL	185,134
Pittsfield, MA	127,859
Quincy-Hannibal, IL-MO	113,474
Roanoke, VA	314,340
Rochester-Austin, MN	268,213
Rocky Mount-Wilson-Roanoke Rapids, NC	287,166
Salinas, CA	432,858
San Juan-Bayamón, PR	2,315,079
Savannah-Hinesville-Statesboro, GA	618,706
Scottsboro-Fort Payne, AL	124,889
Scranton--Wilkes-Barre, PA	567,998
Sebring-Avon Park, FL	105,618
Springfield, MO	487,061
State College-DuBois, PA	236,329
Syracuse-Auburn, NY	728,631
Tallahassee, FL	390,992
Tupelo-Corinth, MS	197,247
Tuscaloosa, AL	277,494
Urban Honolulu, HI	995,638
Victoria-Port Lavaca, TX	117,902
Waco, TX	283,885
Waterloo-Cedar Falls, IA	167,889
Watertown-Fort Drum, NY	116,637
Wausau-Stevens Point-Wisconsin Rapids, WI	311,045
Williamsport-Lock Haven, PA	151,035
Wilmington, NC	300,658

Notes:

1. This list represents cities with no monitored ozone air pollution in unhealthful ranges using the Air Quality Index based on 2015 NAAQS.

Table 4a Cleanest Counties for Short-Term Particle Pollution (Daily $PM_{2.5}$)

County	State	Metropolitan Statistical Area
Baldwin	AL	Mobile-Daphne-Fairhope, AL
Clay	AL	
DeKalb	AL	Scottsboro-Fort Payne, AL
Etowah	AL	Gadsden, AL
Madison	AL	Huntsville-Decatur, AL
Mobile	AL	Mobile-Daphne-Fairhope, AL
Montgomery	AL	Montgomery-Selma-Alexander City, AL
Tuscaloosa	AL	Tuscaloosa, AL
Arkansas	AR	
Ashley	AR	
Crittenden	AR	Memphis-Forrest City, TN-MS-AR
Garland	AR	Hot Springs-Malvern, AR
Jackson	AR	
Polk	AR	
Union	AR	
Washington	AR	Fayetteville-Springdale-Rogers, AR
Apache	AZ	
Pima	AZ	Tucson-Nogales, AZ
Kent	DE	Philadelphia-Reading-Camden, PA-NJ-DE-MD
Sussex	DE	Salisbury-Cambridge, MD-DE
Brevard	FL	Palm Bay-Melbourne-Titusville, FL
Escambia	FL	Pensacola-Ferry Pass, FL-AL
Lee	FL	Cape Coral-Fort Myers-Naples, FL
Palm Beach	FL	Miami-Port St. Lucie-Fort Lauderdale, FL
Pinellas	FL	Tampa-St. Petersburg-Clearwater, FL
Polk	FL	Orlando-Lakeland-Deltona, FL
Sarasota	FL	North Port-Sarasota, FL
Seminole	FL	Orlando-Lakeland-Deltona, FL
Volusia	FL	Orlando-Lakeland-Deltona, FL
Clayton	GA	Atlanta--Athens-Clarke County--Sandy Springs, GA-AL
Cobb	GA	Atlanta--Athens-Clarke County--Sandy Springs, GA-AL
Fulton	GA	Atlanta--Athens-Clarke County--Sandy Springs, GA-AL
Hall	GA	Atlanta--Athens-Clarke County--Sandy Springs, GA-AL
Hawaii	HI	
Honolulu	HI	Urban Honolulu, HI
Kauai	HI	
Maui	HI	Kahului-Wailuku-Lahaina, HI
Black Hawk	IA	Waterloo-Cedar Falls, IA
Clinton	IA	Davenport-Moline, IA-IL
Lee	IA	Burlington-Fort Madison-Keokuk, IA-IL-MO
Linn	IA	Cedar Rapids-Iowa City, IA
Montgomery	IA	
Van Buren	IA	
Champaign	IL	Champaign-Urbana, IL
DuPage	IL	Chicago-Naperville, IL-IN-WI
Jersey	IL	St. Louis-St. Charles-Farmington, MO-IL
Madison	IL	St. Louis-St. Charles-Farmington, MO-IL
McHenry	IL	Chicago-Naperville, IL-IN-WI
St. Clair	IL	St. Louis-St. Charles-Farmington, MO-IL
Winnebago	IL	Rockford-Freeport-Rochelle, IL
Bartholomew	IN	Indianapolis-Carmel-Muncie, IN
Clark	IN	Louisville-Jefferson County--Elizabethtown--Bardstown, KY-IN
Delaware	IN	Indianapolis-Carmel-Muncie, IN
Dubois	IN	
Greene	IN	
Hamilton	IN	Indianapolis-Carmel-Muncie, IN
Henry	IN	Indianapolis-Carmel-Muncie, IN
Howard	IN	Kokomo-Peru, IN
Madison	IN	Indianapolis-Carmel-Muncie, IN
Monroe	IN	Bloomington-Bedford, IN
Spencer	IN	
Tippecanoe	IN	Lafayette-West Lafayette-Frankfort, IN
Campbell	KY	Cincinnati-Wilmington-Maysville, OH-KY-IN
Carter	KY	Charleston-Huntington-Ashland, WV-OH-KY
Christian	KY	Clarksville, TN-KY
Daviess	KY	Owensboro, KY
Hardin	KY	Louisville-Jefferson County--Elizabethtown--Bardstown, KY-IN
Calcasieu Parish	LA	Lake Charles-Jennings, LA
Iberville Parish	LA	Baton Rouge, LA
Jefferson Parish	LA	New Orleans-Metairie-Hammond, LA-MS
Orleans Parish	LA	New Orleans-Metairie-Hammond, LA-MS
St. Bernard Parish	LA	New Orleans-Metairie-Hammond, LA-MS
Tangipahoa Parish	LA	New Orleans-Metairie-Hammond, LA-MS
Terrebonne Parish	LA	Houma-Thibodaux, LA
Bristol	MA	Boston-Worcester-Providence, MA-RI-NH-CT
Hampshire	MA	Springfield, MA
Baltimore City	MD	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Dorchester	MD	Salisbury-Cambridge, MD-DE
Garrett	MD	
Harford	MD	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Howard	MD	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Kent	MD	
Montgomery	MD	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Prince George's	MD	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Washington	MD	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Androscoggin	ME	Portland-Lewiston-South Portland, ME
Cumberland	ME	Portland-Lewiston-South Portland, ME
Hancock	ME	
Kennebec	ME	
Penobscot	ME	Bangor, ME
Bay	MI	Saginaw-Midland-Bay City, MI

Notes:

Monitors in these counties reported no days when $PM_{2.5}$ levels reached the unhealthful range using the Air Quality Index based on the 2012 NAAQS.

Table 4a Cleanest Counties for Short-Term Particle Pollution (24-hour $PM_{2.5}$) (cont.)

County	State	Metropolitan Statistical Area
Genesee	MI	Detroit-Warren-Ann Arbor, MI
Ingham	MI	Lansing-East Lansing, MI
Lenawee	MI	Detroit-Warren-Ann Arbor, MI
Macomb	MI	Detroit-Warren-Ann Arbor, MI
Manistee	MI	
Oakland	MI	Detroit-Warren-Ann Arbor, MI
Cedar	MO	
Clay	MO	Kansas City-Overland Park-Kansas City, MO-KS
Bolivar	MS	Cleveland-Indianola, MS
DeSoto	MS	Memphis-Forrest City, TN-MS-AR
Hancock	MS	Gulfport-Biloxi, MS
Harrison	MS	Gulfport-Biloxi, MS
Jackson	MS	Gulfport-Biloxi, MS
Buncombe	NC	Asheville-Marion-Brevard, NC
Catawba	NC	Hickory-Lenoir-Morganton, NC
Davidson	NC	Greensboro--Winston-Salem--High Point, NC
Durham	NC	Raleigh-Durham-Cary, NC
Guilford	NC	Greensboro--Winston-Salem--High Point, NC
Johnston	NC	Raleigh-Durham-Cary, NC
New Hanover	NC	Wilmington, NC
Northampton	NC	Rocky Mount-Wilson-Roanoke Rapids, NC
Pitt	NC	Greenville-Kinston-Washington, NC
Rowan	NC	Charlotte-Concord, NC-SC
Lancaster	NE	Lincoln-Beatrice, NE
Cumberland	NJ	Philadelphia-Reading-Camden, PA-NJ-DE-MD
Gloucester	NJ	Philadelphia-Reading-Camden, PA-NJ-DE-MD
Hudson	NJ	New York-Newark, NY-NJ-CT-PA
Hunterdon	NJ	New York-Newark, NY-NJ-CT-PA
Morris	NJ	New York-Newark, NY-NJ-CT-PA
Chautauqua	NY	
Essex	NY	
Kings	NY	New York-Newark, NY-NJ-CT-PA
Monroe	NY	Rochester-Batavia-Seneca Falls, NY
New York	NY	New York-Newark, NY-NJ-CT-PA
Orange	NY	New York-Newark, NY-NJ-CT-PA
Richmond	NY	New York-Newark, NY-NJ-CT-PA
Suffolk	NY	New York-Newark, NY-NJ-CT-PA
Allen	OH	Lima-Van Wert-Celina, OH
Athens	OH	
Belmont	OH	Wheeling, WV-OH
Clark	OH	Dayton-Springfield-Kettering, OH
Harrison	OH	
Lake	OH	Cleveland-Akron-Canton, OH
Lawrence	OH	Charleston-Huntington-Ashland, WV-OH-KY
Medina	OH	Cleveland-Akron-Canton, OH
Montgomery	OH	Dayton-Springfield-Kettering, OH
Portage	OH	Cleveland-Akron-Canton, OH
Preble	OH	
Scioto	OH	Charleston-Huntington-Ashland, WV-OH-KY
Erie	PA	Erie-Meadville, PA
Bayamón	PR	San Juan-Bayamón, PR
Caguas	PR	San Juan-Bayamón, PR
Fajardo	PR	San Juan-Bayamón, PR
Guayama	PR	San Juan-Bayamón, PR
Guaynabo	PR	San Juan-Bayamón, PR
Ponce	PR	Ponce-Yauco-Coamo, PR
Washington	RI	Boston-Worcester-Providence, MA-RI-NH-CT
Chesterfield	SC	
Edgefield	SC	Augusta-Richmond County, GA-SC
Florence	SC	Florence, SC
Richland	SC	Columbia-Orangeburg-Newberry, SC
Spartanburg	SC	Greenville-Spartanburg-Anderson, SC
York	SC	Charlotte-Concord, NC-SC
Lawrence	TN	Nashville-Davidson--Murfreesboro, TN
Loudon	TN	Knoxville-Morristown-Sevierville, TN
McMinn	TN	Chattanooga-Cleveland-Dalton, TN-GA
Sullivan	TN	Johnson City-Kingsport-Bristol, TN-VA
Brazos	TX	College Station-Bryan, TX
Ector	TX	Midland-Odessa, TX
Ellis	TX	Dallas-Fort Worth, TX-OK
Albemarle	VA	Charlottesville, VA
Arlington	VA	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Bristol City	VA	Johnson City-Kingsport-Bristol, TN-VA
Charles City	VA	Richmond, VA
Chesterfield	VA	Richmond, VA
Frederick	VA	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Hampton City	VA	Virginia Beach-Norfolk, VA-NC
Lynchburg City	VA	Lynchburg, VA
Norfolk City	VA	Virginia Beach-Norfolk, VA-NC
Rockingham	VA	Harrisonburg-Staunton, VA
Salem City	VA	Roanoke, VA
Virginia Beach City	VA	Virginia Beach-Norfolk, VA-NC
Dane	WI	Madison-Janesville-Beloit, WI
Dodge	WI	Milwaukee-Racine-Waukesha, WI
Grant	WI	
Ozaukee	WI	Milwaukee-Racine-Waukesha, WI
Sauk	WI	Madison-Janesville-Beloit, WI
Berkeley	WV	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Brooke	WV	Pittsburgh-New Castle-Weirton, PA-OH-WV
Cabell	WV	Charleston-Huntington-Ashland, WV-OH-KY
Hancock	WV	Pittsburgh-New Castle-Weirton, PA-OH-WV
Harrison	WV	
Kanawha	WV	Charleston-Huntington-Ashland, WV-OH-KY
Marion	WV	Morgantown-Fairmont, WV

Notes:

Monitors in these counties reported no days when $PM_{2.5}$ levels reached the unhealthful range using the Air Quality Index based on the 2012 NAAQS.

Table 4a Cleanest Counties for Short-Term Particle Pollution (24-hour $PM_{2.5}$) (cont.)

County	State	Metropolitan Statistical Area
Monongalia	WV	Morgantown-Fairmont, WV
Ohio	WV	Wheeling, WV-OH
Wood	WV	Parkersburg-Marietta-Vienna, WV-OH
Sheridan	WY	

Notes:
Monitors in these counties reported no days when $PM_{2.5}$ levels reached the unhealthful range using the Air Quality Index based on the 2012 NAAQS.

Table 4b Top 25 Cleanest Counties for Year-Round Particle Pollution (Annual $PM_{2.5}$)

2024 Rank	County	State	Design Value	Metropolitan Statistical Area
1	Fremont	WY	2.0	
2	Carlton	MN	2.2	Duluth, MN-WI
3	Cook	MN	2.3	
4	Hancock	ME	3.2	
5	Hughes	SD	3.3	
6	Hawaii	HI	3.4	
7	Essex	NY	3.5	
8	Sublette	WY	3.6	
9	Honolulu	HI	3.7	Urban Honolulu, HI
10	Natrona	WY	3.8	Casper, WY
11	Gallatin	MT	3.9	
11	Hillsborough	NH	3.9	Boston-Worcester-Providence, MA-RI-NH-CT
13	Maui	HI	4.0	Kahului-Wailuku-Lahaina, HI
14	Custer	SD	4.1	
14	La Paz	AZ	4.1	
16	Santa Fe	NM	4.3	Albuquerque-Santa Fe-Las Vegas, NM
16	Washington	RI	4.3	Boston-Worcester-Providence, MA-RI-NH-CT
18	New Hanover	NC	4.4	Wilmington, NC
19	Belknap	NH	4.5	Boston-Worcester-Providence, MA-RI-NH-CT
19	Jackson	SD	4.5	
19	Kent	RI	4.5	Boston-Worcester-Providence, MA-RI-NH-CT
19	Matanuska-Susitna Borough	AK	4.5	Anchorage, AK
19	Penobscot	ME	4.5	Bangor, ME
19	Teton	WY	4.5	
25	Lake	MN	4.7	Duluth, MN-WI

Notes:
Counties are ranked by Design Value.

Table 4c Cleanest Counties for Ozone Air Pollution

County	State	Metropolitan Statistical Area
Denali Borough	AK	
Fairbanks North Star Borough	AK	Fairbanks, AK
Baldwin	AL	Mobile-Daphne-Fairhope, AL
DeKalb	AL	Scottsboro-Fort Payne, AL
Elmore	AL	Montgomery-Selma-Alexander City, AL
Etowah	AL	Gadsden, AL
Mobile	AL	Mobile-Daphne-Fairhope, AL
Montgomery	AL	Montgomery-Selma-Alexander City, AL
Morgan	AL	Huntsville-Decatur, AL
Russell	AL	Columbus-Auburn-Opelika, GA-AL
Sumter	AL	
Tuscaloosa	AL	Tuscaloosa, AL
Clark	AR	
Colusa	CA	
Glenn	CA	
Humboldt	CA	
Lake	CA	
Marin	CA	San Jose-San Francisco-Oakland, CA
Mendocino	CA	
Monterey	CA	Salinas, CA
San Francisco	CA	San Jose-San Francisco-Oakland, CA
Santa Cruz	CA	San Jose-San Francisco-Oakland, CA
Siskiyou	CA	
Sonoma	CA	San Jose-San Francisco-Oakland, CA
Archuleta	CO	
Delta	CO	
Sussex	DE	Salisbury-Cambridge, MD-DE
Alachua	FL	Gainesville-Lake City, FL
Baker	FL	Jacksonville-St. Marys-Palatka, FL-GA
Bay	FL	Panama City, FL
Brevard	FL	Palm Bay-Melbourne-Titusville, FL
Broward	FL	Miami-Port St. Lucie-Fort Lauderdale, FL
Collier	FL	Cape Coral-Fort Myers-Naples, FL
Columbia	FL	Gainesville-Lake City, FL
Duval	FL	Jacksonville-St. Marys-Palatka, FL-GA
Flagler	FL	Orlando-Lakeland-Deltona, FL
Highlands	FL	Sebring-Avon Park, FL
Holmes	FL	
Indian River	FL	Miami-Port St. Lucie-Fort Lauderdale, FL
Lake	FL	Orlando-Lakeland-Deltona, FL
Lee	FL	Cape Coral-Fort Myers-Naples, FL
Leon	FL	Tallahassee, FL
Liberty	FL	
Manatee	FL	North Port-Sarasota, FL
Martin	FL	Miami-Port St. Lucie-Fort Lauderdale, FL
Okaloosa	FL	Crestview-Fort Walton Beach-Destin, FL
Orange	FL	Orlando-Lakeland-Deltona, FL
Osceola	FL	Orlando-Lakeland-Deltona, FL
Palm Beach	FL	Miami-Port St. Lucie-Fort Lauderdale, FL
Pasco	FL	Tampa-St. Petersburg-Clearwater, FL
Pinellas	FL	Tampa-St. Petersburg-Clearwater, FL
Polk	FL	Orlando-Lakeland-Deltona, FL
Santa Rosa	FL	Pensacola-Ferry Pass, FL-AL
Sarasota	FL	North Port-Sarasota, FL
Seminole	FL	Orlando-Lakeland-Deltona, FL
St. Lucie	FL	Miami-Port St. Lucie-Fort Lauderdale, FL
Volusia	FL	Orlando-Lakeland-Deltona, FL
Wakulla	FL	Tallahassee, FL
Chatham	GA	Savannah-Hinesville-Statesboro, GA
Chattooga	GA	Chattanooga-Cleveland-Dalton, TN-GA
Clarke	GA	Atlanta--Athens-Clarke County--Sandy Springs, GA-AL
Columbia	GA	Augusta-Richmond County, GA-SC
Glynn	GA	Brunswick, GA
Muscogee	GA	Columbus-Auburn-Opelika, GA-AL
Pike	GA	Atlanta--Athens-Clarke County--Sandy Springs, GA-AL
Richmond	GA	Augusta-Richmond County, GA-SC
Rockdale	GA	Atlanta--Athens-Clarke County--Sandy Springs, GA-AL
Sumter	GA	
Honolulu	HI	Urban Honolulu, HI
Bremer	IA	Waterloo-Cedar Falls, IA
Clinton	IA	Davenport-Moline, IA-IL
Harrison	IA	Omaha-Council Bluffs-Fremont, NE-IA
Montgomery	IA	
Palo Alto	IA	
Polk	IA	Des Moines-Ames-West Des Moines, IA
Scott	IA	Davenport-Moline, IA-IL
Van Buren	IA	
Adams	IL	Quincy-Hannibal, IL-MO
Effingham	IL	
Jo Daviess	IL	
Brown	IN	Indianapolis-Carmel-Muncie, IN
Elkhart	IN	South Bend-Elkhart-Mishawaka, IN-MI
Hamilton	IN	Indianapolis-Carmel-Muncie, IN
Hendricks	IN	Indianapolis-Carmel-Muncie, IN
Neosho	KS	
Trego	KS	
Bell	KY	
Boone	KY	Cincinnati-Wilmington-Maysville, OH-KY-IN
Boyd	KY	Charleston-Huntington-Ashland, WV-OH-KY

Note:
This list represents counties with no monitored ozone air pollution in unhealthful ranges using the Air Quality Index based on 2015 NAAQS.

Table 4c Cleanest Counties for Ozone Air Pollution (cont.)

County	State	Metropolitan Statistical Area
Carter	KY	Charleston-Huntington-Ashland, WV-OH-KY
Christian	KY	Clarksville, TN-KY
Edmonson	KY	Bowling Green-Glasgow, KY
Fayette	KY	Lexington-Fayette--Richmond--Frankfort, KY
Greenup	KY	Charleston-Huntington-Ashland, WV-OH-KY
Morgan	KY	
Perry	KY	
Pike	KY	
Pulaski	KY	
Simpson	KY	
Trigg	KY	Clarksville, TN-KY
Warren	KY	Bowling Green-Glasgow, KY
Washington	KY	
Bossier Parish	LA	Shreveport-Bossier City-Minden, LA
Ouachita Parish	LA	Monroe-Ruston, LA
St. James Parish	LA	New Orleans-Metairie-Hammond, LA-MS
St. Martin Parish	LA	Lafayette-Opelousas-Morgan City, LA
St. Tammany Parish	LA	New Orleans-Metairie-Hammond, LA-MS
Berkshire	MA	Pittsfield, MA
Franklin	MA	Springfield, MA
Hampshire	MA	Springfield, MA
Middlesex	MA	Boston-Worcester-Providence, MA-RI-NH-CT
Garrett	MD	
Androscoggin	ME	Portland-Lewiston-South Portland, ME
Aroostook	ME	
Kennebec	ME	
Oxford	ME	
Penobscot	ME	Bangor, ME
Washington	ME	
Clinton	MI	Lansing-East Lansing, MI
Ingham	MI	Lansing-East Lansing, MI
Carlton	MN	Duluth, MN-WI
Crow Wing	MN	
Goodhue	MN	Minneapolis-St. Paul, MN-WI
Hennepin	MN	Minneapolis-St. Paul, MN-WI
Lake	MN	Duluth, MN-WI
Lyon	MN	
Mille Lacs	MN	Minneapolis-St. Paul, MN-WI
Olmsted	MN	Rochester-Austin, MN
Scott	MN	Minneapolis-St. Paul, MN-WI
St. Louis	MN	Duluth, MN-WI
Stearns	MN	Minneapolis-St. Paul, MN-WI
Boone	MO	Columbia-Moberly-Mexico, MO
Callaway	MO	Jefferson City, MO
Cedar	MO	
Greene	MO	Springfield, MO
Monroe	MO	
Ste. Genevieve	MO	
Bolivar	MS	Cleveland-Indianola, MS
Hancock	MS	Gulfport-Biloxi, MS
Hinds	MS	Jackson-Vicksburg-Brookhaven, MS
Lauderdale	MS	
Lee	MS	Tupelo-Corinth, MS
Yalobusha	MS	
Flathead	MT	
Missoula	MT	Missoula, MT
Alexander	NC	Hickory-Lenoir-Morganton, NC
Avery	NC	
Buncombe	NC	Asheville-Marion-Brevard, NC
Caldwell	NC	Hickory-Lenoir-Morganton, NC
Carteret	NC	New Bern-Morehead City, NC
Caswell	NC	
Durham	NC	Raleigh-Durham-Cary, NC
Edgecombe	NC	Rocky Mount-Wilson-Roanoke Rapids, NC
Forsyth	NC	Greensboro--Winston-Salem--High Point, NC
Guilford	NC	Greensboro--Winston-Salem--High Point, NC
Macon	NC	
Martin	NC	
Montgomery	NC	
New Hanover	NC	Wilmington, NC
Person	NC	Raleigh-Durham-Cary, NC
Pitt	NC	Greenville-Kinston-Washington, NC
Rockingham	NC	Greensboro--Winston-Salem--High Point, NC
Rowan	NC	Charlotte-Concord, NC-SC
Swain	NC	
Yancey	NC	
Burke	ND	
Burleigh	ND	Bismarck, ND
McKenzie	ND	
Ward	ND	
Lancaster	NE	Lincoln-Beatrice, NE
Belknap	NH	Boston-Worcester-Providence, MA-RI-NH-CT
Cheshire	NH	
Grafton	NH	
Hillsborough	NH	Boston-Worcester-Providence, MA-RI-NH-CT
Atlantic	NJ	Philadelphia-Reading-Camden, PA-NJ-DE-MD
Hunterdon	NJ	New York-Newark, NY-NJ-CT-PA
Morris	NJ	New York-Newark, NY-NJ-CT-PA
Passaic	NJ	New York-Newark, NY-NJ-CT-PA
Warren	NJ	Allentown-Bethlehem-Easton, PA-NJ
Albany	NY	Albany-Schenectady, NY
Hamilton	NY	

Note:
This list represents counties with no monitored ozone air pollution in unhealthful ranges using the Air Quality Index based on 2015 NAAQS.

Table 4c Cleanest Counties for Ozone Air Pollution (cont.)

County	State	Metropolitan Statistical Area
Jefferson	NY	Watertown-Fort Drum, NY
Onondaga	NY	Syracuse-Auburn, NY
Orange	NY	New York-Newark, NY-NJ-CT-PA
Oswego	NY	Syracuse-Auburn, NY
Rockland	NY	New York-Newark, NY-NJ-CT-PA
Saratoga	NY	Albany-Schenectady, NY
Steuben	NY	Elmira-Corning, NY
Fayette	OH	Columbus-Marion-Zanesville, OH
Lawrence	OH	Charleston-Huntington-Ashland, WV-OH-KY
Madison	OH	Columbus-Marion-Zanesville, OH
Noble	OH	
Wood	OH	Toledo-Findlay-Tiffin, OH
Columbia	OR	Portland-Vancouver-Salem, OR-WA
Bradford	PA	
Centre	PA	State College-DuBois, PA
Chester	PA	Philadelphia-Reading-Camden, PA-NJ-DE-MD
Clearfield	PA	State College-DuBois, PA
Erie	PA	Erie-Meadville, PA
Fayette	PA	Pittsburgh-New Castle-Weirton, PA-OH-WV
Franklin	PA	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Lackawanna	PA	Scranton--Wilkes-Barre, PA
Lehigh	PA	Allentown-Bethlehem-Easton, PA-NJ
Luzerne	PA	Scranton--Wilkes-Barre, PA
Lycoming	PA	Williamsport-Lock Haven, PA
Monroe	PA	New York-Newark, NY-NJ-CT-PA
Somerset	PA	Johnstown-Somerset, PA
Tioga	PA	
Washington	PA	Pittsburgh-New Castle-Weirton, PA-OH-WV
Westmoreland	PA	Pittsburgh-New Castle-Weirton, PA-OH-WV
York	PA	Harrisburg-York-Lebanon, PA
Bayamón	PR	San Juan-Bayamón, PR
Mayagüez	PR	Mayagüez-San Germán, PR
Aiken	SC	Augusta-Richmond County, GA-SC
Anderson	SC	Greenville-Spartanburg-Anderson, SC
Berkeley	SC	Charleston-North Charleston, SC
Charleston	SC	Charleston-North Charleston, SC
Chesterfield	SC	
Darlington	SC	Florence, SC
Edgefield	SC	Augusta-Richmond County, GA-SC
Horry	SC	Myrtle Beach-Conway, SC-NC
Jackson	SD	
Anderson	TN	Knoxville-Morristown-Sevierville, TN
Claiborne	TN	
DeKalb	TN	
Jefferson	TN	Knoxville-Morristown-Sevierville, TN
Knox	TN	Knoxville-Morristown-Sevierville, TN
Loudon	TN	Knoxville-Morristown-Sevierville, TN
Sevier	TN	Knoxville-Morristown-Sevierville, TN
Sullivan	TN	Johnson City-Kingsport-Bristol, TN-VA
Brewster	TX	
Cameron	TX	Brownsville-Harlingen-Raymondville, TX
Hunt	TX	Dallas-Fort Worth, TX-OK
McLennan	TX	Waco, TX
Polk	TX	
Victoria	TX	Victoria-Port Lavaca, TX
Webb	TX	Laredo, TX
Albemarle	VA	Charlottesville, VA
Charles City	VA	Richmond, VA
Fauquier	VA	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Frederick	VA	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Giles	VA	Blacksburg-Christiansburg, VA
Hampton City	VA	Virginia Beach-Norfolk, VA-NC
Hanover	VA	Richmond, VA
Madison	VA	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Prince Edward	VA	
Roanoke	VA	Roanoke, VA
Rockbridge	VA	
Rockingham	VA	Harrisonburg-Staunton, VA
Wythe	VA	
Bennington	VT	
Chittenden	VT	Burlington-South Burlington-Barre, VT
Rutland	VT	
Clallam	WA	
Clark	WA	Portland-Vancouver-Salem, OR-WA
Skagit	WA	Seattle-Tacoma, WA
Whatcom	WA	Bellingham, WA
Eau Claire	WI	Eau Claire-Menomonie, WI
Forest	WI	
La Crosse	WI	La Crosse-Onalaska, WI-MN
Marathon	WI	Wausau-Stevens Point-Wisconsin Rapids, WI
Taylor	WI	
Vilas	WI	
Berkeley	WV	Washington-Baltimore-Arlington, DC-MD-VA-WV-PA
Cabell	WV	Charleston-Huntington-Ashland, WV-OH-KY
Gilmer	WV	
Greenbrier	WV	
Kanawha	WV	Charleston-Huntington-Ashland, WV-OH-KY
Monongalia	WV	Morgantown-Fairmont, WV
Tucker	WV	

Note:
This list represents counties with no monitored ozone air pollution in unhealthful ranges using the Air Quality Index based on 2015 NAAQS.

ALABAMA

American Lung Association in Alabama

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Baldwin	0	0	0	0.0	A
Clay	DNC	DNC	DNC	DNC	DNC
DeKalb	0	0	0	0.0	A
Elmore	0	0	0	0.0	A
Etowah	0	0	0	0.0	A
Jefferson	4	0	0	1.3	C
Madison	2	0	0	0.7	B
Mobile	0	0	0	0.0	A
Montgomery	0	0	0	0.0	A
Morgan	0	0	0	0.0	A
Russell	0	0	0	0.0	A
Shelby	1	0	0	0.3	B
Sumter	0	0	0	0.0	A
Tuscaloosa	0	0	0	0.0	A

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Baldwin	0	0	0	0	0.0	A	7.5	Pass
Clay	0	0	0	0	0.0	A	6.8	Pass
DeKalb	0	0	0	0	0.0	A	7.2	Pass
Elmore	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Etowah	0	0	0	0	0.0	A	8.2	Pass
Jefferson	1	0	0	0	0.3	B	8.4	Pass
Madison	0	0	0	0	0.0	A	7.1	Pass
Mobile	0	0	0	0	0.0	A	7.9	Pass
Montgomery	0	0	0	0	0.0	A	INC	INC
Morgan	1	0	0	0	0.3	B	7.4	Pass
Russell	3	0	0	0	1.0	C	9.1	Fail
Shelby	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Sumter	INC	INC	INC	INC	INC	INC	INC	INC
Tuscaloosa	0	0	0	0	0.0	A	7.6	Pass

ALABAMA

American Lung Association in Alabama

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Baldwin	246,435	51,268	54,040	3,648	18,745	19,589	132	27,965	2,471	30,195	41,947
Clay	14,198	2,963	3,040	211	1,083	1,127	8	1,605	142	2,371	2,790
DeKalb	71,998	17,044	13,004	1,213	5,290	5,221	39	7,311	742	13,248	15,270
Elmore	89,563	19,194	14,988	1,366	6,770	6,427	48	8,887	1,044	9,779	24,911
Etowah	103,088	22,075	20,545	1,571	7,783	7,857	55	11,096	1,100	17,990	23,602
Jefferson	665,409	149,721	113,774	10,654	49,244	46,572	354	64,654	8,017	106,000	340,769
Madison	403,565	85,566	64,566	6,089	30,559	28,466	216	39,135	4,664	44,142	146,840
Mobile	411,411	94,978	71,849	6,759	30,276	29,058	219	40,484	4,748	77,450	182,435
Montgomery	226,361	53,664	37,048	3,819	16,501	15,470	120	21,403	2,725	39,991	157,681
Morgan	124,211	28,336	22,959	2,016	9,221	9,126	67	12,797	1,278	15,935	32,292
Russell	58,555	14,207	9,088	1,011	4,263	3,987	31	5,487	685	12,882	32,574
Shelby	230,115	51,047	39,566	3,633	17,248	16,628	123	23,093	2,609	15,339	56,446
Sumter	11,853	2,280	2,344	162	902	864	6	1,215	152	3,377	8,733
Tuscaloosa	236,780	47,489	33,633	3,379	17,919	15,412	126	20,823	3,321	36,853	94,380

ALASKA

American Lung Association in Alaska

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Anchorage Municipality	DNC	DNC	DNC	DNC	DNC
Denali Borough	0	0	0	0.0	A
Fairbanks North Star Borough	0	0	0	0.0	A
Juneau City and Borough	DNC	DNC	DNC	DNC	DNC
Matanuska-Susitna Borough	DNC	DNC	DNC	DNC	DNC

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Anchorage Municipality	3	0	0	0	1.0	C	5.6	Pass
Denali Borough	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Fairbanks North Star Borough	47	45	1	0	38.8	F	12.2	Fail
Juneau City and Borough	1	0	0	0	0.3	B	4.9	Pass
Matanuska-Susitna Borough	3	1	0	0	1.5	C	4.5	Pass

ALASKA

American Lung Association in Alaska

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Anchorage Municipality	287,145	67,508	36,895	4,708	23,750	11,752	143	17,039	3,924	29,127	128,950
Denali Borough	1,585	279	219	19	139	74	1	106	20	116	409
Fairbanks North Star Borough	95,356	22,335	11,980	1,558	7,969	3,736	48	5,422	1,264	7,117	30,210
Juneau City and Borough	31,685	6,451	5,091	450	2,681	1,475	16	2,181	411	2,455	11,731
Matanuska-Susitna Borough	113,325	28,963	15,660	2,020	9,027	4,758	57	6,970	1,386	10,866	25,716

ARIZONA

American Lung Association in Arizona

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Apache	DNC	DNC	DNC	DNC	DNC
Cochise	4	0	0	1.3	C
Coconino	1	0	0	0.3	B
Gila	29	4	0	11.7	F
La Paz	1	0	0	0.3	B
Maricopa	126	10	1	47.7	F
Navajo	2	0	0	0.7	B
Pima	17	0	0	5.7	F
Pinal	64	1	0	21.8	F
Santa Cruz	DNC	DNC	DNC	DNC	DNC
Yavapai	1	0	0	0.3	B
Yuma	4	0	0	1.3	C

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Apache	0	0	0	0	0.0	A	INC	INC
Cochise	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Coconino	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Gila	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
La Paz	1	0	0	0	0.3	B	4.1	Pass
Maricopa	15	6	1	0	8.7	F	10.5	Fail
Navajo	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Pima	0	0	0	0	0.0	A	6.1	Pass
Pinal	34	3	0	0	12.8	F	12.4	Fail
Santa Cruz	6	2	0	0	3.0	D	10.2	Fail
Yavapai	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Yuma	3	0	0	0	1.0	C	8.9	Pass

ARIZONA

American Lung Association in Arizona

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Apache	65,432	17,044	10,940	1,374	4,775	3,184	24	4,481	647	18,155	53,061
Cochise	125,663	26,113	30,648	2,105	9,795	7,281	46	10,599	1,110	21,447	57,074
Coconino	144,060	27,858	21,032	2,246	11,417	6,767	52	9,199	1,900	22,092	66,605
Gila	53,922	10,208	16,581	823	4,305	3,567	20	5,331	411	9,832	20,607
La Paz	16,506	2,603	6,885	210	1,362	1,266	6	1,947	108	3,258	7,161
Maricopa	4,551,524	1,019,236	737,530	82,166	348,328	224,399	1,654	312,542	50,443	487,571	2,139,139
Navajo	108,650	27,336	21,751	2,204	8,020	5,700	40	8,179	988	27,684	61,987
Pima	1,057,597	207,381	224,391	16,718	83,620	57,849	384	82,569	11,309	150,271	527,666
Pinal	464,154	100,753	98,018	8,122	35,769	25,130	169	36,002	4,348	50,448	210,868
Santa Cruz	48,759	12,370	9,515	997	3,586	2,507	18	3,584	485	9,009	41,182
Yavapai	246,191	37,675	84,113	3,037	20,535	17,567	89	26,447	1,784	32,990	52,051
Yuma	207,842	51,869	42,522	4,181	15,310	10,577	76	15,118	2,007	29,448	147,989

ARKANSAS

American Lung Association in Arkansas

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Arkansas	DNC	DNC	DNC	DNC	DNC
Ashley	DNC	DNC	DNC	DNC	DNC
Clark	0	0	0	0.0	A
Crittenden	9	1	0	3.5	F
Garland	DNC	DNC	DNC	DNC	DNC
Jackson	DNC	DNC	DNC	DNC	DNC
Newton	1	0	0	0.3	B
Polk	2	0	0	0.7	B
Pulaski	4	0	0	1.3	C
Union	DNC	DNC	DNC	DNC	DNC
Washington	3	0	0	1.0	C

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Arkansas	0	0	0	0	0.0	A	7.5	Pass
Ashley	0	0	0	0	0.0	A	INC	INC
Clark	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Crittenden	0	0	0	0	0.0	A	7.8	Pass
Garland	0	0	0	0	0.0	A	INC	INC
Jackson	0	0	0	0	0.0	A	INC	INC
Newton	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Polk	0	0	0	0	0.0	A	7.8	Pass
Pulaski	1	0	0	0	0.3	B	8.8	Pass
Union	0	0	0	0	0.0	A	INC	INC
Washington	0	0	0	0	0.0	A	7.5	Pass

ARKANSAS

American Lung Association in Arkansas

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Arkansas	16,512	3,802	3,406	265	1,369	1,353	10	1,852	175	3,049	5,212
Ashley	18,354	4,101	4,013	286	1,538	1,546	11	2,132	186	3,956	5,857
Clark	21,250	4,241	3,542	296	1,778	1,545	13	2,053	298	3,762	6,806
Crittenden	47,061	12,665	7,159	883	3,675	3,372	28	4,448	563	10,118	28,563
Garland	100,089	19,495	25,172	1,360	8,647	8,824	60	12,418	1,005	17,077	19,188
Jackson	16,624	3,307	3,032	231	1,417	1,310	10	1,756	191	3,515	4,043
Newton	7,078	1,321	1,932	92	620	651	4	926	62	1,357	551
Polk	19,337	4,253	4,543	297	1,624	1,651	12	2,306	186	3,325	2,483
Pulaski	399,145	91,469	67,999	6,379	32,703	30,003	237	40,015	4,907	67,560	198,627
Union	37,752	8,963	7,348	625	3,087	2,988	23	4,064	401	6,993	14,913
Washington	256,054	59,168	32,195	4,126	20,615	17,126	154	21,923	3,460	35,177	78,344

CALIFORNIA

American Lung Association in California

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Alameda	17	2	0	6.7	F
Amador	7	1	0	2.8	D
Butte	17	2	0	6.7	F
Calaveras	9	1	0	3.5	F
Colusa	0	0	0	0.0	A
Contra Costa	11	0	0	3.7	F
El Dorado	49	6	0	19.3	F
Fresno	129	17	1	52.2	F
Glenn	0	0	0	0.0	A
Humboldt	0	0	0	0.0	A
Imperial	41	3	0	15.2	F
Inyo	17	0	0	5.7	F
Kern	196	43	1	87.5	F
Kings	57	3	0	20.5	F
Lake	0	0	0	0.0	A
Los Angeles	182	87	16	114.8	F
Madera	58	6	0	22.3	F
Marin	0	0	0	0.0	A
Mariposa	44	8	0	18.7	F
Mendocino	0	0	0	0.0	A
Merced	47	3	0	17.2	F
Mono	DNC	DNC	DNC	DNC	DNC
Monterey	0	0	0	0.0	A
Napa	INC	INC	INC	INC	INC
Nevada	58	8	1	24.0	F
Orange	36	10	2	18.3	F
Placer	76	8	0	29.3	F
Plumas	DNC	DNC	DNC	DNC	DNC
Riverside	229	90	10	128.0	F
Sacramento	48	3	0	17.5	F
San Benito	3	0	0	1.0	C
San Bernardino	195	175	34	175.2	F
San Diego	68	5	0	25.2	F
San Francisco	0	0	0	0.0	A
San Joaquin	7	0	1	3.0	D
San Luis Obispo	30	0	1	10.7	F
San Mateo	1	0	0	0.3	B
Santa Barbara	6	1	0	2.5	D
Santa Clara	14	1	0	5.2	F

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Alameda	10	10	1	0	9.0	F	9.4	Fail
Amador	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Butte	23	22	2	1	20.8	F	11.6	Fail
Calaveras	14	16	0	0	12.7	F	9.0	Pass
Colusa	19	27	0	0	19.8	F	10.5	Fail
Contra Costa	9	11	0	0	8.5	F	10.0	Fail
El Dorado	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Fresno	90	43	5	0	54.8	F	17.5	Fail
Glenn	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Humboldt	2	0	0	0	0.7	B	7.4	Pass
Imperial	18	2	0	0	7.0	F	11.1	Fail
Inyo	38	32	8	6	39.0	F	8.8	Pass
Kern	135	31	2	0	61.8	F	18.8	Fail
Kings	94	23	0	0	42.8	F	16.6	Fail
Lake	1	4	0	0	2.3	D	6.6	Pass
Los Angeles	42	12	1	0	20.7	F	13.4	Fail
Madera	33	21	1	0	22.2	F	13.2	Fail
Marin	4	4	1	0	4.0	F	7.5	Pass
Mariposa	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Mendocino	17	12	1	2	14.0	F	11.1	Fail
Merced	27	16	0	0	17.0	F	12.3	Fail
Mono	21	29	10	18	43.2	F	19.5	Fail
Monterey	4	9	2	0	7.2	F	6.9	Pass
Napa	INC	INC	INC	INC	INC	INC	INC	INC
Nevada	14	27	4	0	20.8	F	8.9	Pass
Orange	20	2	0	0	7.7	F	11.2	Fail
Placer	21	26	3	0	22.0	F	10.9	Fail
Plumas	28	29	1	1	25.3	F	17.0	Fail
Riverside	34	10	0	0	16.3	F	13.6	Fail
Sacramento	29	23	0	1	22.0	F	11.7	Fail
San Benito	6	8	0	0	6.0	F	6.5	Pass
San Bernardino	33	8	0	0	15.0	F	14.0	Fail
San Diego	15	10	0	0	10.0	F	10.0	Fail
San Francisco	3	5	0	0	3.5	F	8.2	Pass
San Joaquin	31	16	0	0	18.3	F	12.3	Fail
San Luis Obispo	5	8	2	0	7.0	F	8.7	Pass
San Mateo	4	5	0	0	3.8	F	7.6	Pass
Santa Barbara	7	3	0	0	3.8	F	8.0	Pass
Santa Clara	14	8	0	0	8.7	F	10.7	Fail

CALIFORNIA (cont.)

American Lung Association in California

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Santa Cruz	0	0	0	0.0	A
Shasta	16	0	0	5.3	F
Siskiyou	0	0	0	0.0	A
Solano	6	0	0	2.0	C
Sonoma	0	0	0	0.0	A
Stanislaus	53	4	0	19.7	F
Sutter	22	3	0	8.8	F
Tehama	33	1	0	11.5	F
Tulare	242	42	2	103.0	F
Tuolumne	8	0	0	2.7	D
Ventura	39	3	0	14.5	F
Yolo	7	0	0	2.3	D

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Santa Cruz	6	10	2	2	10.0	F	7.2	Pass
Shasta	11	17	2	0	13.5	F	9.3	Fail
Siskiyou	19	37	2	2	27.8	F	11.6	Fail
Solano	6	5	1	0	5.2	F	9.4	Fail
Sonoma	1	6	0	0	3.3	F	7.3	Pass
Stanislaus	44	19	0	0	24.2	F	14.3	Fail
Sutter	24	19	1	1	19.0	F	13.8	Fail
Tehama	17	36	0	0	23.7	F	9.9	Fail
Tulare	70	21	1	1	35.3	F	18.4	Fail
Tuolumne	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Ventura	5	2	0	0	2.7	D	7.8	Pass
Yolo	3	1	0	0	1.5	C	INC	INC

CALIFORNIA

American Lung Association in California

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Alameda	1,628,997	317,744	256,384	17,813	113,694	61,125	532	92,276	18,379	161,918	1,160,476
Amador	41,412	6,344	11,565	356	3,114	2,016	14	3,239	278	3,767	10,229
Butte	207,303	41,519	38,407	2,328	14,390	7,874	68	12,254	2,266	37,152	66,108
Calaveras	46,563	8,055	13,479	452	3,432	2,279	15	3,687	349	5,561	10,460
Colusa	21,914	5,777	3,528	324	1,403	773	7	1,185	216	2,324	14,775
Contra Costa	1,156,966	250,739	200,789	14,057	79,110	44,885	378	68,482	11,763	99,767	696,393
El Dorado	192,646	37,225	45,461	2,087	13,742	8,603	63	13,564	1,634	14,477	47,548
Fresno	1,015,190	280,680	130,958	15,735	63,330	32,520	332	48,812	10,780	185,876	744,400
Glenn	28,339	7,559	4,881	424	1,812	1,022	9	1,582	266	3,933	14,584
Humboldt	135,010	24,999	26,988	1,401	9,586	5,409	44	8,450	1,470	23,910	37,726
Imperial	178,713	50,235	24,582	2,816	11,096	5,791	59	8,774	1,732	36,354	162,416
Inyo	18,718	3,776	4,628	212	1,321	828	6	1,323	158	2,073	7,634
Kern	916,108	260,354	107,854	14,596	56,417	28,379	300	42,186	9,535	158,995	637,251
Kings	152,981	40,804	16,689	2,288	9,610	4,654	51	6,861	1,477	24,576	108,252
Lake	68,191	14,853	16,330	833	4,714	2,953	22	4,707	566	11,556	23,326
Los Angeles	9,721,138	1,983,781	1,479,466	111,215	670,547	358,801	3,176	539,981	107,753	1,328,547	7,271,416
Madera	160,256	43,366	23,312	2,431	10,123	5,401	52	8,203	1,747	33,721	110,534
Marin	256,018	48,302	62,666	2,708	18,430	11,802	84	18,615	2,089	19,345	77,539
Mariposa	17,020	2,983	5,130	167	1,252	838	6	1,367	127	2,555	3,975
Mendocino	89,783	18,717	22,108	1,049	6,280	3,937	29	6,299	783	15,657	33,940
Merced	290,014	82,915	34,018	4,648	17,811	8,934	95	13,287	3,084	53,454	220,343
Mono	12,978	2,196	2,396	123	941	534	4	815	128	1,319	4,516
Monterey	432,858	109,977	65,801	6,166	27,993	15,073	142	22,934	4,352	50,699	311,103
Napa	134,300	25,799	28,650	1,446	9,525	5,668	44	8,862	1,280	11,343	67,186
Nevada	102,293	17,130	30,149	960	7,586	5,029	33	8,164	814	10,683	16,775
Orange	3,151,184	654,517	516,335	36,693	217,255	120,144	1,030	182,022	33,090	308,990	1,953,645
Placer	417,772	90,179	86,295	5,056	28,774	17,174	136	26,814	3,923	25,827	132,175
Plumas	19,351	3,270	6,188	183	1,439	985	6	1,617	144	2,416	3,496
Riverside	2,473,902	593,553	378,953	33,276	163,108	88,107	809	133,640	25,846	264,935	1,699,282
Sacramento	1,584,169	359,154	243,730	20,135	106,190	57,046	517	86,433	17,173	190,656	927,532
San Benito	67,579	16,896	9,120	947	4,385	2,309	22	3,450	698	4,842	47,735
San Bernardino	2,193,656	557,742	273,519	31,268	141,025	72,078	718	107,038	23,861	291,258	1,652,061
San Diego	3,276,208	679,626	507,032	38,101	224,682	119,040	1,073	180,364	35,634	338,482	1,854,933
San Francisco	808,437	110,700	147,446	6,206	60,521	32,773	265	50,160	9,353	83,231	502,155
San Joaquin	793,229	207,198	106,871	11,616	50,666	26,579	259	39,844	8,355	96,295	576,788
San Luis Obispo	282,013	47,941	63,001	2,688	20,460	11,858	92	18,774	2,828	31,956	92,649
San Mateo	729,181	140,498	133,557	7,877	51,381	29,161	238	44,709	7,442	52,227	461,508
Santa Barbara	443,837	97,405	74,086	5,461	29,989	16,022	145	24,676	4,849	59,962	256,131
Santa Clara	1,870,945	380,160	282,817	21,312	129,162	68,951	613	103,675	20,055	137,728	1,341,700

CALIFORNIA (CONT.)

American Lung Association in California

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Santa Cruz	264,370	47,728	50,619	2,676	18,872	10,592	86	16,395	2,851	31,936	116,417
Shasta	180,930	38,832	39,122	2,177	12,478	7,460	59	11,762	1,667	24,791	41,003
Siskiyou	43,660	8,686	12,137	487	3,109	2,033	14	3,299	340	6,823	11,429
Solano	448,747	97,156	79,185	5,447	30,631	17,163	147	26,368	4,492	43,957	294,341
Sonoma	482,650	90,147	105,606	5,054	34,475	20,608	158	32,317	4,623	42,504	189,983
Stanislaus	551,275	145,893	76,250	8,179	35,065	18,489	180	27,844	5,745	81,730	347,261
Sutter	98,503	24,603	16,209	1,379	6,427	3,555	32	5,451	986	13,784	56,835
Tehama	65,245	15,465	13,322	867	4,371	2,606	21	4,084	581	9,732	23,213
Tulare	477,544	141,291	56,443	7,921	28,949	14,655	156	21,831	5,048	86,096	353,320
Tuolumne	54,531	9,386	15,331	526	4,005	2,585	18	4,188	418	7,014	11,560
Ventura	832,605	179,928	145,732	10,087	56,931	32,146	272	49,191	8,332	78,211	474,612
Yolo	222,115	43,393	29,906	2,433	15,313	7,468	72	11,225	2,939	33,935	124,403

COLORADO

American Lung Association in Colorado

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Adams	45	1	0	15.5	F
Arapahoe	55	5	0	20.8	F
Archuleta	0	0	0	0.0	A
Boulder	47	2	0	16.7	F
Clear Creek	18	0	0	6.0	F
Delta	0	0	0	0.0	A
Denver	43	2	0	15.3	F
Douglas	63	10	0	26.0	F
El Paso	36	1	0	12.5	F
Garfield	3	0	0	1.0	C
Gilpin	31	1	0	10.8	F
Gunnison	3	0	0	1.0	C
Jackson	INC	INC	INC	INC	INC
Jefferson	97	16	0	40.3	F
La Plata	4	0	0	1.3	C
Larimer	47	3	0	17.2	F
Mesa	3	0	0	1.0	C
Montezuma	4	0	0	1.3	C
Pueblo	DNC	DNC	DNC	DNC	DNC
Rio Blanco	6	0	0	2.0	C
Weld	47	1	0	16.2	F

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Adams	4	1	0	0	1.8	C	INC	INC
Arapahoe	1	0	0	0	0.3	B	6.1	Pass
Archuleta	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Boulder	20	3	0	0	8.2	F	8.7	Pass
Clear Creek	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Delta	2	0	0	0	0.7	B	INC	INC
Denver	19	2	0	0	7.3	F	9.3	Fail
Douglas	7	2	0	0	3.3	F	6.7	Pass
El Paso	1	0	0	0	0.3	B	5.5	Pass
Garfield	INC	INC	INC	INC	INC	INC	INC	INC
Gilpin	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Gunnison	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Jackson	INC	INC	INC	INC	INC	INC	INC	INC
Jefferson	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
La Plata	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Larimer	14	1	0	0	5.2	F	7.7	Pass
Mesa	3	0	0	0	1.0	C	5.8	Pass
Montezuma	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Pueblo	1	0	0	0	0.3	B	INC	INC
Rio Blanco	4	1	0	0	1.8	C	8.5	Pass
Weld	14	0	0	0	4.7	F	8.8	Pass

COLORADO

American Lung Association in Colorado

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Adams	527,575	129,498	59,768	9,031	43,723	18,837	188	24,545	5,839	53,153	280,694
Arapahoe	655,808	145,482	95,751	10,146	55,722	26,112	234	34,469	7,031	52,215	280,118
Archuleta	14,003	2,383	3,957	166	1,238	777	5	1,064	104	1,362	3,305
Boulder	327,468	56,615	54,329	3,948	29,566	14,024	117	18,567	3,641	37,074	75,603
Clear Creek	9,355	1,267	2,152	88	869	490	3	662	81	691	1,281
Delta	31,602	6,047	8,826	422	2,729	1,692	11	2,317	239	4,549	6,180
Denver	713,252	128,348	89,001	8,951	64,512	26,720	255	34,711	9,174	83,390	321,565
Douglas	375,988	86,913	52,679	6,061	31,439	15,199	134	20,091	3,763	11,794	78,160
El Paso	740,567	169,993	104,035	11,855	62,477	28,420	265	37,402	7,787	61,445	244,184
Garfield	62,271	14,930	9,355	1,041	5,155	2,493	22	3,304	605	4,894	21,196
Gilpin	5,891	809	1,211	56	546	305	2	410	53	373	870
Gunnison	17,267	2,715	2,528	189	1,596	710	6	931	194	1,578	2,466
Jackson	1,302	231	343	16	114	70	0	96	10	175	218
Jefferson	576,143	105,195	103,790	7,336	51,176	25,609	206	34,129	5,903	37,513	133,357
La Plata	56,607	9,781	11,791	682	5,063	2,697	20	3,623	553	6,407	12,285
Larimer	366,778	66,337	64,064	4,626	32,806	15,663	131	20,787	4,126	39,357	70,080
Mesa	158,636	32,131	33,488	2,241	13,680	7,342	57	9,887	1,515	16,577	31,437
Montezuma	26,468	5,503	6,481	384	2,250	1,318	9	1,793	220	3,975	7,549
Pueblo	169,544	36,892	32,968	2,573	14,366	7,539	61	10,117	1,623	24,790	83,714
Rio Blanco	6,569	1,541	1,205	107	545	283	2	379	59	634	1,146
Weld	350,176	88,411	45,390	6,166	28,660	12,959	125	17,020	3,699	31,318	128,291

CONNECTICUT

American Lung Association in Connecticut

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Fairfield	41	8	0	17.7	F
Hartford	5	0	0	1.7	C
Litchfield	4	0	0	1.3	C
Middlesex	18	1	0	6.5	F
New Haven	28	3	0	10.8	F
New London	13	1	0	4.8	F
Tolland	3	0	0	1.0	C
Windham	1	0	0	0.3	B

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Fairfield	5	0	0	0	1.7	C	8.0	Pass
Hartford	2	0	0	0	0.7	B	7.5	Pass
Litchfield	2	0	0	0	0.7	B	5.1	Pass
Middlesex	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
New Haven	3	0	0	0	1.0	C	8.2	Pass
New London	1	0	0	0	0.3	B	6.9	Pass
Tolland	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Windham	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC

CONNECTICUT

American Lung Association in Connecticut

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Fairfield	959,768	210,680	158,603	17,359	93,497	42,247	452	58,760	9,266	85,452	386,212
Hartford	896,854	186,592	158,512	15,374	88,532	40,128	422	55,990	8,841	92,542	371,285
Litchfield	185,000	32,664	42,169	2,691	18,765	9,618	87	13,867	1,527	15,713	25,753
Middlesex	164,759	27,712	35,695	2,283	16,944	8,368	78	11,953	1,495	10,537	29,067
New Haven	863,700	172,492	156,201	14,212	86,112	39,220	407	54,808	8,747	100,433	345,820
New London	268,805	51,417	51,843	4,236	27,014	12,615	127	17,760	2,473	23,102	69,656
Tolland	150,293	25,624	25,398	2,111	15,615	6,664	71	9,143	1,633	15,039	26,007
Windham	116,418	22,529	20,814	1,856	11,700	5,348	55	7,471	1,121	13,043	21,471

DELAWARE

American Lung Association in Delaware

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Kent	2	0	0	0.7	B
New Castle	4	0	0	1.3	C
Sussex	0	0	0	0.0	A

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Kent	0	0	0	0	0.0	A	INC	INC
New Castle	2	0	0	0	0.7	B	INC	INC
Sussex	0	0	0	0	0.0	A	INC	INC

DELAWARE

American Lung Association in Delaware

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Kent	186,946	42,496	34,393	2,964	14,126	9,755	87	12,717	2,083	19,204	78,595
New Castle	575,494	121,047	98,720	8,442	44,506	30,283	267	38,738	6,576	56,547	265,939
Sussex	255,956	44,584	78,731	3,109	20,823	16,658	119	24,172	2,030	24,092	62,884

DISTRICT OF COLUMBIA

American Lung Association in the District of Columbia

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
District of Columbia	9	0	0	3.0	D

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
District of Columbia	2	2	0	0	1.7	C	8.6	Pass

DISTRICT OF COLUMBIA

American Lung Association in the District of Columbia

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
District of Columbia	671,803	124,475	87,260	12,031	61,433	21,294	257	34,339	8,001	91,474	419,653

FLORIDA

American Lung Association in Florida

	HIGH OZONE DAYS 2020–2022					HIGH PARTICLE POLLUTION DAYS 2020–2022							
						24-Hour						Annual	
County	Orange	Red	Purple	Wgt. Avg.	Grade	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Alachua	0	0	0	0.0	A	1	0	0	0	0.3	B	7.1	Pass
Baker	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Bay	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Brevard	0	0	0	0.0	A	0	0	0	0	0.0	A	7.9	Pass
Broward	0	0	0	0.0	A	3	0	0	0	1.0	C	9.4	Fail
Collier	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Columbia	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Duval	0	0	0	0.0	A	1	0	0	0	0.3	B	8.7	Pass
Escambia	1	0	0	0.3	B	0	0	0	0	0.0	A	9.5	Fail
Flagler	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Highlands	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Hillsborough	4	0	0	1.3	C	1	0	0	0	0.3	B	8.3	Pass
Holmes	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Indian River	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lake	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lee	0	0	0	0.0	A	0	0	0	0	0.0	A	INC	INC
Leon	0	0	0	0.0	A	1	0	0	0	0.3	B	7.2	Pass
Liberty	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Manatee	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Marion	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Martin	0	0	0	0.0	A	INC	INC	INC	INC	INC	INC	INC	INC
Miami-Dade	1	0	0	0.3	B	1	0	0	0	0.3	B	7.1	Pass
Okaloosa	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Orange	0	0	0	0.0	A	INC	INC	INC	INC	INC	INC	INC	INC
Osceola	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Palm Beach	0	0	0	0.0	A	0	0	0	0	0.0	A	6.7	Pass
Pasco	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Pinellas	0	0	0	0.0	A	0	0	0	0	0.0	A	7.7	Pass
Polk	0	0	0	0.0	A	0	0	0	0	0.0	A	8.3	Pass
St. Lucie	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Santa Rosa	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Sarasota	0	0	0	0.0	A	0	0	0	0	0.0	A	7.9	Pass
Seminole	0	0	0	0.0	A	0	0	0	0	0.0	A	7.5	Pass
Volusia	0	0	0	0.0	A	0	0	0	0	0.0	A	8.3	Pass
Wakulla	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC

FLORIDA

American Lung Association in Florida

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Alachua	284,030	49,898	44,121	2,616	21,753	13,726	138	17,351	3,918	50,816	114,238
Baker	27,803	6,840	4,208	359	1,993	1,357	14	1,802	277	3,338	5,474
Bay	185,134	38,526	34,226	2,020	13,934	10,017	90	13,635	1,847	21,668	46,818
Brevard	630,693	112,879	155,522	5,918	49,015	38,822	307	54,919	5,613	62,175	175,373
Broward	1,947,026	400,094	353,019	20,975	147,139	105,037	949	142,577	20,413	257,252	1,304,281
Collier	397,994	64,531	133,653	3,383	31,150	27,845	194	40,966	3,004	40,381	152,115
Columbia	71,908	15,697	14,660	823	5,314	3,951	35	5,447	647	12,901	20,246
Duval	1,016,536	225,778	156,979	11,836	74,732	50,012	495	65,693	11,599	137,467	504,180
Escambia	324,878	67,241	58,634	3,525	24,271	16,963	158	22,718	3,427	50,147	118,346
Flagler	126,705	20,282	39,760	1,063	10,030	8,757	62	12,816	997	11,424	33,255
Highlands	105,618	17,481	38,272	916	8,170	7,551	51	11,206	774	16,289	37,666
Hillsborough	1,513,301	325,426	229,110	17,060	112,526	74,953	738	98,326	17,441	191,075	816,965
Holmes	19,651	4,018	3,985	211	1,482	1,098	10	1,513	163	3,513	2,840
Indian River	167,352	24,708	58,848	1,295	13,339	12,130	81	17,953	1,226	19,060	43,332
Lake	410,139	77,248	109,935	4,050	31,281	25,571	200	36,522	3,688	39,355	140,918
Lee	822,453	138,943	240,873	7,284	64,093	53,904	401	77,740	7,075	89,587	294,650
Leon	297,369	54,306	44,317	2,847	22,631	14,190	144	17,893	4,209	52,424	134,538
Liberty	7,603	1,314	1,283	69	595	404	4	535	59	1,332	2,138
Manatee	429,125	73,474	124,122	3,852	33,470	28,175	209	40,693	3,614	42,580	128,699
Marion	396,415	73,553	114,887	3,856	30,234	25,497	193	36,793	3,411	60,464	130,118
Martin	162,006	25,527	52,963	1,338	12,814	11,343	79	16,658	1,163	15,939	37,104
Miami-Dade	2,673,837	528,913	459,733	27,728	204,211	142,732	1,303	191,980	28,619	381,423	2,306,084
Okaloosa	216,482	48,138	36,231	2,524	15,879	10,895	106	14,473	2,208	16,979	61,045
Orange	1,452,726	306,733	191,501	16,080	108,509	68,894	708	88,165	17,894	178,037	892,056
Osceola	422,545	100,693	56,675	5,279	30,543	19,822	206	25,685	4,873	54,089	304,240
Palm Beach	1,518,477	281,868	382,647	14,777	116,433	92,613	739	130,996	14,094	165,851	723,976
Pasco	608,794	122,396	134,246	6,417	46,007	35,067	297	48,846	5,958	65,148	190,111
Pinellas	961,739	146,541	256,228	7,682	77,065	62,175	468	88,538	8,828	117,299	261,621
Polk	787,404	171,779	154,640	9,005	57,931	42,020	384	57,206	8,240	120,353	376,497
St. Lucie	358,704	69,878	88,558	3,663	27,224	21,605	175	30,543	3,282	47,534	170,061
Santa Rosa	198,268	42,995	33,403	2,254	14,773	10,324	97	13,881	1,937	18,064	38,020
Sarasota	462,286	63,491	174,368	3,329	37,214	34,842	225	52,018	3,251	38,638	84,169
Seminole	478,772	97,847	80,170	5,130	36,112	24,846	233	33,118	5,367	52,808	208,930
Volusia	579,192	100,335	147,434	5,260	45,154	35,926	282	50,847	5,282	66,107	182,441
Wakulla	35,178	7,267	5,859	381	2,664	1,858	17	2,499	322	3,771	7,545

GEORGIA

American Lung Association in Georgia

	HIGH OZONE DAYS 2020–2022					HIGH PARTICLE POLLUTION DAYS 2020–2022							
						24-Hour						Annual	
County	Orange	Red	Purple	Wgt. Avg.	Grade	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Bibb	1	0	0	0.3	B	1	0	0	0	0.3	B	8.8	Pass
Chatham	0	0	0	0.0	A	1	0	0	0	0.3	B	INC	INC
Chattooga	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Clarke	0	0	0	0.0	A	1	0	0	0	0.3	B	9.2	Fail
Clayton	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	8.4	Pass
Cobb	1	0	0	0.3	B	0	0	0	0	0.0	A	8.4	Pass
Coffee	DNC	DNC	DNC	DNC	DNC	1	0	0	0	0.3	B	6.9	Pass
Columbia	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Dawson	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DeKalb	4	0	0	1.3	C	1	0	0	0	0.3	B	9.0	Pass
Dougherty	DNC	DNC	DNC	DNC	DNC	7	0	0	0	2.3	D	9.2	Fail
Douglas	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Fulton	4	1	0	1.8	C	0	0	0	0	0.0	A	9.4	Fail
Glynn	0	0	0	0.0	A	1	0	0	0	0.3	B	8.1	Pass
Gwinnett	2	0	0	0.7	B	1	0	0	0	0.3	B	8.8	Pass
Hall	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	8.8	Pass
Henry	4	0	0	1.3	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Houston	DNC	DNC	DNC	DNC	DNC	6	0	0	0	2.0	C	9.1	Fail
Lowndes	DNC	DNC	DNC	DNC	DNC	1	0	0	0	0.3	B	8.6	Pass
Murray	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Muscogee	0	0	0	0.0	A	1	1	0	0	0.8	B	8.3	Pass
Pike	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Richmond	0	0	0	0.0	A	8	0	0	0	2.7	D	10.4	Fail
Rockdale	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Sumter	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Walker	DNC	DNC	DNC	DNC	DNC	1	0	0	0	0.3	B	INC	INC
Washington	DNC	DNC	DNC	DNC	DNC	8	0	0	0	2.7	D	10.2	Fail

GEORGIA

American Lung Association in Georgia

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Bibb	156,197	37,771	25,944	2,937	11,417	8,796	81	11,315	1,773	34,064	100,804
Chatham	301,107	61,340	51,272	4,770	23,111	17,408	158	22,266	3,634	45,884	159,245
Chattooga	24,936	5,468	4,712	425	1,879	1,527	13	1,991	231	4,271	4,530
Clarke	129,875	21,414	16,209	1,665	10,420	6,522	68	7,908	2,052	31,580	57,719
Clayton	296,564	79,236	32,248	6,162	20,870	14,342	154	17,901	3,731	42,575	272,834
Cobb	771,952	171,337	107,063	13,324	57,771	42,162	405	53,500	9,147	61,108	389,143
Coffee	43,172	10,514	6,239	818	3,144	2,324	23	2,959	438	7,959	18,745
Columbia	162,419	39,980	24,608	3,109	11,792	8,875	85	11,351	1,816	11,298	57,552
Dawson	30,138	5,971	6,092	464	2,334	1,935	16	2,533	298	2,398	3,406
DeKalb	762,820	169,594	107,083	13,188	57,071	41,147	398	52,038	9,542	101,463	539,430
Dougherty	82,966	19,939	14,368	1,551	6,079	4,734	43	6,106	985	22,306	63,628
Douglas	147,316	37,017	18,212	2,879	10,601	7,683	77	9,733	1,737	14,898	99,836
Fulton	1,074,634	221,562	137,490	17,229	81,983	57,034	564	71,427	13,853	133,088	663,459
Glynn	85,079	17,297	19,505	1,345	6,559	5,693	44	7,527	857	11,354	30,985
Gwinnett	975,353	251,067	111,705	19,524	69,571	49,219	512	61,938	11,341	86,107	663,631
Hall	212,692	50,422	34,227	3,921	15,636	12,068	112	15,533	2,251	24,679	88,201
Henry	248,364	61,600	31,151	4,790	17,951	13,092	130	16,612	2,949	19,857	166,174
Houston	169,631	42,925	23,249	3,338	12,191	8,880	89	11,261	1,962	17,991	80,127
Lowndes	119,739	29,115	15,779	2,264	8,717	5,974	63	7,448	1,523	17,678	57,957
Murray	40,472	9,500	6,416	739	2,984	2,316	21	2,985	428	5,332	8,024
Muscogee	202,616	50,009	30,077	3,889	14,696	10,794	106	13,719	2,368	35,163	125,622
Pike	19,990	4,694	3,217	365	1,474	1,161	11	1,501	213	1,709	2,663
Richmond	206,640	46,848	31,544	3,643	15,388	11,253	108	14,284	2,421	35,823	140,119
Rockdale	94,984	22,432	15,005	1,744	6,989	5,463	49	7,054	1,053	10,561	71,862
Sumter	28,877	6,509	5,166	506	2,158	1,685	15	2,176	327	6,101	17,566
Walker	68,915	14,578	13,447	1,134	5,246	4,305	36	5,623	693	9,937	7,217
Washington	19,738	4,260	3,543	331	1,493	1,192	10	1,547	178	3,949	11,433

HAWAII

American Lung Association in Hawaii

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Hawaii	DNC	DNC	DNC	DNC	DNC
Honolulu	0	0	0	0.0	A
Kauai	DNC	DNC	DNC	DNC	DNC
Maui	DNC	DNC	DNC	DNC	DNC

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Hawaii	0	0	0	0	0.0	A	3.4	Pass
Honolulu	0	0	0	0	0.0	A	3.7	Pass
Kauai	0	0	0	0	0.0	A	INC	INC
Maui	0	0	0	0	0.0	A	4.0	Pass

HAWAII

American Lung Association in Hawaii

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Hawaii	206,315	43,255	48,400	3,999	14,591	6,144	72	12,969	2,087	29,609	143,863
Honolulu	995,638	203,999	195,377	18,860	71,758	27,126	350	55,959	10,869	89,980	821,881
Kauai	73,810	15,655	16,582	1,447	5,216	2,160	26	4,534	751	6,620	52,434
Maui	164,351	34,415	33,977	3,182	11,699	4,714	58	9,775	1,728	14,663	115,372

IDAHO

American Lung Association in Idaho

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Ada	16	0	0	5.3	F
Bannock	3	0	0	1.0	C
Benewah	DNC	DNC	DNC	DNC	DNC
Butte	2	0	0	0.7	B
Canyon	DNC	DNC	DNC	DNC	DNC
Franklin	DNC	DNC	DNC	DNC	DNC
Idaho	3	0	0	1.0	C
Jerome	DNC	DNC	DNC	DNC	DNC
Lemhi	DNC	DNC	DNC	DNC	DNC
Shoshone	DNC	DNC	DNC	DNC	DNC

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Ada	6	1	0	0	2.5	D	8.1	Pass
Bannock	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Benewah	14	15	0	1	13.0	F	10.2	Fail
Butte	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Canyon	20	8	0	0	10.7	F	INC	INC
Franklin	8	1	0	0	3.2	D	6.6	Pass
Idaho	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Jerome	INC	INC	INC	INC	INC	INC	INC	INC
Lemhi	23	11	0	0	13.2	F	11.3	Fail
Shoshone	12	12	3	1	12.8	F	10.7	Fail

IDAHO

American Lung Association in Idaho

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Ada	518,907	112,845	84,697	7,870	45,047	23,952	208	33,844	6,135	40,623	87,933
Bannock	89,517	22,379	13,707	1,561	7,480	3,864	36	5,397	1,082	11,147	15,742
Benewah	10,370	2,335	2,420	163	872	552	4	821	91	1,483	1,654
Butte	2,684	602	692	42	225	147	1	220	25	399	268
Canyon	251,065	66,307	36,630	4,624	20,568	10,639	100	14,886	2,963	25,965	76,931
Franklin	15,189	4,579	2,245	319	1,177	628	6	889	162	1,203	1,462
Idaho	17,593	3,411	5,107	238	1,527	1,037	7	1,566	136	2,161	1,769
Jerome	25,311	7,425	3,420	518	1,992	1,024	10	1,430	271	2,924	10,549
Lemhi	8,240	1,455	2,589	101	728	508	3	772	68	1,146	586
Shoshone	14,012	2,955	3,307	206	1,203	751	6	1,113	129	1,834	1,349

ILLINOIS

American Lung Association in Illinois

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Adams	0	0	0	0.0	A
Champaign	3	0	0	1.0	C
Clark	1	0	0	0.3	B
Cook	37	6	0	15.3	F
DuPage	6	1	0	2.5	D
Effingham	0	0	0	0.0	A
Hamilton	1	0	0	0.3	B
Jersey	8	0	0	2.7	D
Jo Daviess	0	0	0	0.0	A
Kane	9	1	0	3.5	F
Lake	21	2	0	8.0	F
McHenry	13	0	0	4.3	F
McLean	5	0	0	1.7	C
Macon	2	0	0	0.7	B
Macoupin	2	0	0	0.7	B
Madison	18	0	0	6.0	F
Peoria	2	0	0	0.7	B
Randolph	3	0	0	1.0	C
Rock Island	2	0	0	0.7	B
St. Clair	2	1	0	1.2	C
Sangamon	3	0	0	1.0	C
Will	6	0	0	2.0	C
Winnebago	1	0	0	0.3	B

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Adams	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Champaign	0	0	0	0	0.0	A	7.8	Pass
Clark	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Cook	4	0	0	0	1.3	C	10.5	Fail
DuPage	0	0	0	0	0.0	A	9.5	Fail
Effingham	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Hamilton	2	0	0	0	0.7	B	8.8	Pass
Jersey	0	0	0	0	0.0	A	8.0	Pass
Jo Daviess	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Kane	1	0	0	0	0.3	B	9.2	Fail
Lake	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
McHenry	0	0	0	0	0.0	A	8.9	Pass
McLean	1	0	0	0	0.3	B	8.9	Pass
Macon	3	0	0	0	1.0	C	9.2	Fail
Macoupin	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Madison	0	0	0	0	0.0	A	10.0	Fail
Peoria	1	0	0	0	0.3	B	INC	INC
Randolph	2	0	0	0	0.7	B	8.2	Pass
Rock Island	2	0	0	0	0.7	B	8.8	Pass
St. Clair	0	0	0	0	0.0	A	10.0	Fail
Sangamon	1	0	0	0	0.3	B	8.3	Pass
Will	1	1	0	0	0.8	B	9.7	Fail
Winnebago	0	0	0	0	0.0	A	9.1	Fail

ILLINOIS

American Lung Association in Illinois

	AT-RISK GROUPS											
				Lung Diseases								
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Adams	64,725	14,459	13,667	647	4,376	3,176	34	4,769	578	8,475	6,004
Champaign	206,542	38,655	29,630	1,730	14,952	8,420	110	11,806	2,596	36,364	72,375
Clark	15,229	3,419	3,065	153	1,034	745	8	1,116	130	1,703	634
Cook	5,109,292	1,069,611	826,245	47,864	358,748	226,834	2,710	328,733	55,496	688,627	3,010,470
DuPage	920,901	200,390	162,203	8,967	63,707	42,687	489	62,813	8,957	61,619	330,087
Effingham	34,325	8,121	6,487	363	2,300	1,603	18	2,383	301	3,133	1,617
Hamilton	7,984	1,803	1,769	81	536	402	4	608	68	1,058	397
Jersey	21,246	4,231	4,406	189	1,490	1,072	11	1,606	191	2,057	1,028
Jo Daviess	21,758	3,873	6,571	173	1,513	1,309	12	2,041	152	1,828	1,344
Kane	514,182	121,549	80,550	5,439	34,948	22,636	273	32,996	5,006	41,027	228,424
Lake	709,150	162,159	113,993	7,256	48,640	31,705	377	46,297	6,769	56,275	294,738
McHenry	311,747	69,845	51,959	3,126	21,493	14,329	166	21,043	2,901	18,106	67,763
McLean	171,141	35,679	25,332	1,597	12,065	7,188	91	10,246	2,004	18,099	37,968
Macon	101,483	22,715	21,571	1,016	6,852	4,980	54	7,483	964	14,579	26,177
Macoupin	44,245	9,062	9,729	406	3,064	2,275	24	3,434	388	5,241	1,952
Madison	263,864	55,509	49,333	2,484	18,345	12,503	140	18,483	2,605	31,585	44,211
Peoria	178,383	42,081	33,209	1,883	11,959	8,158	95	12,070	1,757	23,909	57,290
Randolph	30,068	5,954	6,277	266	2,109	1,506	16	2,253	235	3,999	4,216
Rock Island	141,527	31,482	29,223	1,409	9,594	6,846	75	10,241	1,311	20,347	43,921
St. Clair	252,671	57,904	44,214	2,591	17,205	11,532	134	16,972	2,499	39,066	100,166
Sangamon	194,534	42,185	37,984	1,888	13,365	9,345	103	13,905	1,882	21,500	41,823
Will	696,757	162,744	102,286	7,283	47,758	30,272	370	43,851	6,936	48,828	279,060
Winnebago	282,188	65,462	53,119	2,929	19,035	13,185	150	19,574	2,681	42,830	97,719

INDIANA

American Lung Association in Indiana

	HIGH OZONE DAYS 2020–2022					HIGH PARTICLE POLLUTION DAYS 2020–2022							
						24-Hour						Annual	
County	Orange	Red	Purple	Wgt. Avg.	Grade	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Allen	2	0	0	0.7	B	INC	INC	INC	INC	INC	INC	INC	INC
Bartholomew	1	0	0	0.3	B	0	0	0	0	0.0	A	7.0	Pass
Boone	4	0	0	1.3	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Brown	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Carroll	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Clark	1	0	0	0.3	B	0	0	0	0	0.0	A	9.9	Fail
Delaware	1	0	0	0.3	B	0	0	0	0	0.0	A	8.1	Pass
Dubois	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	8.8	Pass
Elkhart	0	0	0	0.0	A	3	2	0	0	2.0	C	8.4	Pass
Floyd	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Greene	2	0	0	0.7	B	0	0	0	0	0.0	A	7.7	Pass
Hamilton	0	0	0	0.0	A	0	0	0	0	0.0	A	9.8	Fail
Hendricks	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Henry	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	7.5	Pass
Howard	7	0	0	2.3	D	0	0	0	0	0.0	A	7.4	Pass
Knox	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lake	13	0	0	4.3	F	3	1	0	0	1.5	C	9.8	Fail
LaPorte	13	1	0	4.8	F	1	0	0	0	0.3	B	8.1	Pass
Madison	4	0	0	1.3	C	0	0	0	0	0.0	A	8.9	Pass
Marion	6	0	0	2.0	C	18	1	0	0	6.5	F	11.9	Fail
Monroe	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	7.7	Pass
Perry	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Porter	13	1	0	4.8	F	2	1	0	0	1.2	C	8.3	Pass
Posey	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
St. Joseph	8	0	0	2.7	D	3	1	0	0	1.5	C	9.6	Fail
Shelby	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Spencer	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	8.2	Pass
Sullivan	DNC	DNC	DNC	DNC	DNC	INC	INC	INC	INC	INC	INC	INC	INC
Tippecanoe	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	8.4	Pass
Vanderburgh	1	0	0	0.3	B	2	0	0	0	0.7	B	9.2	Fail
Vigo	1	0	0	0.3	B	2	0	0	0	0.7	B	8.7	Pass
Wabash	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Warrick	4	0	0	1.3	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Whitley	DNC	DNC	DNC	DNC	DNC	1	0	0	0	0.3	B	7.6	Pass

INDIANA

American Lung Association in Indiana

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Allen	391,449	98,300	61,511	7,919	32,208	24,903	243	29,388	4,619	44,410	111,778
Bartholomew	83,540	20,017	14,333	1,613	6,982	5,573	52	6,660	914	10,442	17,158
Boone	74,164	18,612	11,149	1,499	6,153	4,825	46	5,630	840	3,825	9,370
Brown	15,570	2,569	4,151	207	1,433	1,357	10	1,720	132	1,489	817
Carroll	20,555	4,450	4,261	358	1,774	1,531	13	1,879	204	2,106	1,517
Clark	124,237	26,897	21,138	2,167	10,737	8,549	77	10,131	1,453	11,755	23,311
Delaware	112,031	19,940	19,786	1,606	10,043	7,614	69	9,055	1,526	19,758	15,915
Dubois	43,632	10,501	8,311	846	3,653	3,088	27	3,753	429	3,606	4,991
Elkhart	206,890	55,712	32,600	4,488	16,634	13,080	129	15,499	2,294	26,704	56,372
Floyd	80,714	18,008	14,236	1,451	6,917	5,609	50	6,698	916	7,971	10,939
Greene	31,006	6,620	6,292	533	2,691	2,311	19	2,821	312	3,888	1,371
Hamilton	364,921	91,292	50,946	7,354	30,351	23,279	226	26,804	4,365	16,387	70,371
Hendricks	182,534	44,078	27,569	3,551	15,306	11,877	114	13,852	2,103	9,627	38,872
Henry	48,915	9,874	9,695	795	4,300	3,603	31	4,374	468	6,269	3,487
Howard	83,574	18,907	16,784	1,523	7,095	5,983	52	7,336	905	12,517	13,852
Knox	35,789	7,543	6,755	608	3,093	2,497	22	3,020	383	4,988	3,075
Lake	499,689	115,108	89,342	9,273	42,353	34,469	310	41,363	5,664	72,873	237,682
LaPorte	111,675	23,491	21,770	1,892	9,691	8,037	70	9,758	1,095	16,055	24,466
Madison	131,744	27,971	24,977	2,253	11,416	9,397	82	11,354	1,414	18,875	21,630
Marion	969,466	236,984	130,896	19,091	80,519	58,634	601	67,253	12,627	149,846	466,850
Monroe	139,745	21,738	20,670	1,751	12,799	8,716	87	10,011	2,135	23,312	24,516
Perry	19,183	3,924	3,737	316	1,678	1,389	12	1,683	174	2,903	1,363
Porter	174,791	36,937	32,087	2,976	15,184	12,375	109	14,854	1,993	15,180	33,390
Posey	25,063	5,398	5,294	435	2,165	1,878	16	2,313	245	2,416	1,146
St. Joseph	272,234	62,509	46,096	5,036	22,974	17,899	169	21,328	3,302	34,388	80,457
Shelby	44,991	9,970	8,422	803	3,870	3,236	28	3,900	469	6,233	4,187
Spencer	19,967	4,301	4,170	346	1,728	1,503	12	1,845	195	1,850	1,203
Sullivan	20,670	3,804	3,950	306	1,856	1,510	13	1,815	195	2,339	1,817
Tippecanoe	188,717	37,701	23,524	3,037	16,416	10,814	118	12,148	2,653	33,200	49,312
Vanderburgh	179,744	38,508	32,983	3,102	15,475	12,384	111	14,915	2,111	26,687	32,718
Vigo	106,006	21,496	18,416	1,732	9,228	7,073	66	8,428	1,269	17,975	15,681
Wabash	30,828	6,430	6,807	518	2,676	2,331	19	2,896	316	3,400	1,932
Warrick	65,185	14,899	12,147	1,200	5,543	4,605	40	5,561	706	4,762	5,915
Whitley	34,627	7,872	6,727	634	2,950	2,495	22	3,034	352	3,085	1,901

IOWA

American Lung Association in Iowa

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Black Hawk	DNC	DNC	DNC	DNC	DNC
Bremer	0	0	0	0.0	A
Clinton	0	0	0	0.0	A
Harrison	0	0	0	0.0	A
Johnson	DNC	DNC	DNC	DNC	DNC
Lee	DNC	DNC	DNC	DNC	DNC
Linn	1	0	0	0.3	B
Montgomery	0	0	0	0.0	A
Muscatine	DNC	DNC	DNC	DNC	DNC
Palo Alto	0	0	0	0.0	A
Polk	0	0	0	0.0	A
Pottawattamie	DNC	DNC	DNC	DNC	DNC
Scott	0	0	0	0.0	A
Van Buren	0	0	0	0.0	A
Woodbury	DNC	DNC	DNC	DNC	DNC

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Black Hawk	0	0	0	0	0.0	A	7.9	Pass
Bremer	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Clinton	0	0	0	0	0.0	A	8.6	Pass
Harrison	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Johnson	1	0	0	0	0.3	B	7.8	Pass
Lee	0	0	0	0	0.0	A	8.2	Pass
Linn	0	0	0	0	0.0	A	8.1	Pass
Montgomery	0	0	0	0	0.0	A	6.7	Pass
Muscatine	1	0	0	0	0.3	B	8.1	Pass
Palo Alto	0	1	0	0	0.5	B	7.0	Pass
Polk	1	2	0	0	1.3	C	7.6	Pass
Pottawattamie	1	0	0	0	0.3	B	8.2	Pass
Scott	0	1	0	0	0.5	B	8.4	Pass
Van Buren	0	0	0	0	0.0	A	7.1	Pass
Woodbury	0	1	0	0	0.5	B	7.9	Pass

IOWA

American Lung Association in Iowa

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Black Hawk	130,274	28,109	23,309	1,618	9,907	6,389	73	8,572	1,649	20,825	26,901
Bremer	25,259	5,657	5,007	326	1,897	1,313	14	1,777	288	1,582	1,560
Clinton	46,344	10,564	9,568	608	3,476	2,533	26	3,426	474	6,077	4,644
Harrison	14,658	3,404	2,950	196	1,097	800	8	1,078	144	1,323	677
Johnson	156,420	29,763	21,146	1,713	12,378	6,850	88	8,932	2,370	22,481	36,791
Lee	32,840	6,936	7,258	399	2,507	1,858	19	2,528	322	4,255	3,171
Linn	229,033	50,945	40,117	2,932	17,394	11,568	129	15,405	2,698	20,251	37,083
Montgomery	10,205	2,283	2,273	131	766	576	6	785	100	1,119	738
Muscatine	42,377	10,118	7,753	582	3,146	2,168	24	2,903	452	5,116	10,397
Palo Alto	8,764	2,000	2,045	115	650	492	5	677	82	950	701
Polk	501,089	119,897	71,143	6,901	37,484	23,028	283	30,097	6,223	50,460	124,112
Pottawattamie	93,173	21,190	17,613	1,220	7,014	4,872	53	6,536	1,014	10,637	13,487
Scott	173,924	39,971	30,798	2,301	13,076	8,792	98	11,730	2,013	20,116	37,807
Van Buren	7,256	1,700	1,689	98	535	412	4	566	66	928	295
Woodbury	105,671	26,989	16,730	1,553	7,697	4,972	60	6,587	1,206	13,386	33,521

KANSAS

American Lung Association in Kansas

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Johnson	2	0	0	0.7	B
Leavenworth	2	0	0	0.7	B
Neosho	0	0	0	0.0	A
Sedgwick	6	0	0	2.0	C
Shawnee	0	1	0	0.5	B
Sumner	3	0	0	1.0	C
Trego	0	0	0	0.0	A
Wyandotte	6	0	0	2.0	C

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Johnson	4	0	0	0	1.3	C	8.9	Pass
Leavenworth	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Neosho	4	0	0	0	1.3	C	9.6	Fail
Sedgwick	5	0	0	0	1.7	C	INC	INC
Shawnee	5	2	0	0	2.7	D	INC	INC
Sumner	5	0	0	0	1.7	C	9.8	Fail
Trego	3	0	0	0	1.0	C	INC	INC
Wyandotte	8	0	0	0	2.7	D	10.8	Fail

KANSAS

American Lung Association in Kansas

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Johnson	619,195	143,498	100,187	10,740	51,180	32,927	293	41,169	7,421	33,349	134,610
Leavenworth	82,892	19,484	13,283	1,458	6,829	4,367	39	5,458	865	7,294	17,703
Neosho	15,606	3,770	3,196	282	1,249	885	7	1,156	161	2,360	1,871
Sedgwick	525,525	129,479	84,157	9,691	42,704	27,045	249	33,936	6,279	81,103	176,172
Shawnee	177,480	40,538	34,574	3,034	14,540	9,993	84	12,899	2,006	23,618	48,797
Sumner	22,473	5,421	4,529	406	1,798	1,282	11	1,667	227	2,905	2,640
Trego	2,752	506	737	38	232	184	1	248	25	295	172
Wyandotte	165,746	44,564	22,803	3,335	13,157	8,045	78	9,882	1,981	25,639	101,273

KENTUCKY

American Lung Association in Kentucky

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Bell	0	0	0	0.0	A
Boone	0	0	0	0.0	A
Boyd	0	0	0	0.0	A
Bullitt	3	0	0	1.0	C
Campbell	2	0	0	0.7	B
Carter	0	0	0	0.0	A
Christian	0	0	0	0.0	A
Daviess	1	0	0	0.3	B
Edmonson	0	0	0	0.0	A
Fayette	0	0	0	0.0	A
Greenup	0	0	0	0.0	A
Hancock	1	0	0	0.3	B
Hardin	1	0	0	0.3	B
Jefferson	15	0	0	5.0	F
Jessamine	1	0	0	0.3	B
Livingston	3	0	0	1.0	C
McCracken	2	0	0	0.7	B
Morgan	0	0	0	0.0	A
Oldham	3	0	0	1.0	C
Perry	0	0	0	0.0	A
Pike	0	0	0	0.0	A
Pulaski	0	0	0	0.0	A
Simpson	0	0	0	0.0	A
Trigg	0	0	0	0.0	A
Warren	0	0	0	0.0	A
Washington	0	0	0	0.0	A

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Bell	2	0	0	0	0.7	B	9.3	Fail
Boone	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Boyd	1	0	0	0	0.3	B	8.0	Pass
Bullitt	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Campbell	0	0	0	0	0.0	A	7.8	Pass
Carter	0	0	0	0	0.0	A	6.2	Pass
Christian	0	0	0	0	0.0	A	9.2	Fail
Daviess	0	0	0	0	0.0	A	9.0	Pass
Edmonson	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Fayette	1	0	0	0	0.3	B	8.2	Pass
Greenup	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Hancock	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Hardin	0	0	0	0	0.0	A	7.9	Pass
Jefferson	5	0	0	0	1.7	C	10.2	Fail
Jessamine	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Livingston	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
McCracken	4	0	0	0	1.3	C	INC	INC
Morgan	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Oldham	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Perry	1	2	0	0	1.3	C	8.0	Pass
Pike	0	1	0	0	0.5	B	7.2	Pass
Pulaski	1	0	0	0	0.3	B	8.0	Pass
Simpson	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Trigg	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Warren	2	0	0	0	0.7	B	8.1	Pass
Washington	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC

KENTUCKY

American Lung Association in Kentucky

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Bell	23,568	5,094	4,658	482	1,997	2,285	18	2,427	246	6,953	1,642
Boone	139,093	34,961	20,899	3,308	11,400	12,053	108	12,441	1,583	10,120	20,466
Boyd	48,110	10,247	9,778	970	4,087	4,697	37	5,010	490	8,437	3,576
Bullitt	83,836	17,587	14,757	1,664	7,214	7,997	65	8,335	946	7,813	6,235
Campbell	93,300	18,932	16,491	1,792	8,100	8,623	72	9,065	1,108	8,673	7,807
Carter	26,395	5,867	5,326	555	2,215	2,567	20	2,735	278	5,010	987
Christian	73,037	20,214	9,345	1,913	5,818	5,148	57	5,403	818	12,282	25,652
Daviess	103,222	24,845	18,651	2,351	8,503	9,319	80	9,875	1,146	13,143	13,602
Edmonson	12,269	2,167	2,632	205	1,090	1,285	9	1,364	133	2,048	610
Fayette	320,347	65,298	48,688	6,179	27,993	27,129	247	28,290	4,335	45,848	98,147
Greenup	35,403	7,447	7,936	705	2,998	3,595	27	3,877	363	5,599	1,573
Hancock	9,021	2,149	1,689	203	744	849	7	897	94	1,248	437
Hardin	111,862	27,467	17,042	2,599	9,237	9,628	87	9,981	1,283	13,692	27,487
Jefferson	773,399	168,669	136,238	15,961	65,812	70,103	596	73,934	9,286	115,319	276,472
Jessamine	54,254	12,665	9,120	1,199	4,533	4,876	42	5,102	639	6,479	6,968
Livingston	8,963	1,822	2,023	172	766	943	7	1,009	86	1,300	557
McCracken	67,490	14,525	14,208	1,375	5,703	6,584	52	7,075	736	10,063	11,888
Morgan	14,120	2,475	2,495	234	1,271	1,360	11	1,418	125	3,042	1,204
Oldham	69,431	16,955	10,199	1,604	5,754	6,179	54	6,318	719	2,836	8,514
Perry	27,361	6,324	5,023	598	2,282	2,587	21	2,721	293	7,200	1,384
Pike	56,286	11,431	11,475	1,082	4,845	5,637	43	5,981	587	13,778	1,904
Pulaski	65,795	14,309	13,038	1,354	5,564	6,437	51	6,824	697	12,116	4,250
Simpson	19,949	4,572	3,405	433	1,675	1,821	15	1,904	218	3,011	3,059
Trigg	14,332	3,096	3,336	293	1,201	1,499	11	1,618	134	1,971	1,777
Warren	139,843	32,338	19,008	3,060	11,840	11,225	108	11,593	1,871	24,613	33,495
Washington	12,061	2,728	2,366	258	1,009	1,169	9	1,239	122	1,710	1,422

LOUISIANA

American Lung Association in Louisiana

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Ascension Parish	1	1	0	0.8	B
Bossier Parish	0	0	0	0.0	A
Caddo Parish	1	0	0	0.3	B
Calcasieu Parish	0	1	0	0.5	B
East Baton Rouge Parish	5	1	0	2.2	D
Iberville Parish	12	1	0	4.5	F
Jefferson Parish	2	0	0	0.7	B
Lafayette Parish	1	0	0	0.3	B
Lafourche Parish	1	0	0	0.3	B
Livingston Parish	1	0	0	0.3	B
Orleans Parish	DNC	DNC	DNC	DNC	DNC
Ouachita Parish	0	0	0	0.0	A
Pointe Coupee Parish	1	0	0	0.3	B
Rapides Parish	DNC	DNC	DNC	DNC	DNC
St. Bernard Parish	1	0	0	0.3	B
St. James Parish	0	0	0	0.0	A
St. John the Baptist Parish	1	0	0	0.3	B
St. Martin Parish	0	0	0	0.0	A
St. Tammany Parish	0	0	0	0.0	A
Tangipahoa Parish	DNC	DNC	DNC	DNC	DNC
Terrebonne Parish	DNC	DNC	DNC	DNC	DNC
West Baton Rouge Parish	8	0	0	2.7	D

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Ascension Parish	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Bossier Parish	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Caddo Parish	1	0	0	0	0.3	B	9.6	Fail
Calcasieu Parish	0	0	0	0	0.0	A	7.4	Pass
East Baton Rouge Parish	3	0	0	0	1.0	C	8.5	Pass
Iberville Parish	0	0	0	0	0.0	A	7.7	Pass
Jefferson Parish	0	0	0	0	0.0	A	7.7	Pass
Lafayette Parish	2	0	0	0	0.7	B	7.9	Pass
Lafourche Parish	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Livingston Parish	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Orleans Parish	0	0	0	0	0.0	A	7.8	Pass
Ouachita Parish	2	0	0	0	0.7	B	7.5	Pass
Pointe Coupee Parish	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Rapides Parish	2	0	0	0	0.7	B	7.4	Pass
St. Bernard Parish	0	0	0	0	0.0	A	8.0	Pass
St. James Parish	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
St. John the Baptist Parish	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
St. Martin Parish	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
St. Tammany Parish	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Tangipahoa Parish	0	0	0	0	0.0	A	7.5	Pass
Terrebonne Parish	0	0	0	0	0.0	A	7.2	Pass
West Baton Rouge Parish	2	0	0	0	0.7	B	8.8	Pass

LOUISIANA

American Lung Association in Louisiana

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Ascension Parish	130,458	33,911	17,289	2,967	9,549	8,386	71	10,278	1,634	13,406	44,757
Bossier Parish	129,276	31,668	20,412	2,771	9,653	8,680	70	10,824	1,579	16,634	46,179
Caddo Parish	229,025	53,220	43,618	4,657	17,470	16,699	124	21,326	2,722	49,858	129,755
Calcasieu Parish	202,418	49,651	33,316	4,345	15,142	13,916	110	17,469	2,390	32,866	66,296
East Baton Rouge Parish	450,544	99,672	70,362	8,722	34,559	30,019	244	37,121	6,255	80,321	255,044
Iberville Parish	29,506	5,966	5,188	522	2,336	2,168	16	2,727	344	5,105	15,327
Jefferson Parish	425,884	93,329	81,175	8,167	33,072	31,663	231	40,375	4,956	63,585	210,888
Lafayette Parish	247,866	58,966	37,333	5,160	18,670	16,565	135	20,512	3,148	41,649	89,147
Lafourche Parish	95,870	21,519	16,222	1,883	7,382	6,859	52	8,622	1,126	16,245	23,090
Livingston Parish	148,425	37,434	20,946	3,276	10,976	9,711	81	11,970	1,865	19,692	24,905
Orleans Parish	369,749	71,513	64,471	6,258	29,495	26,678	199	33,401	5,151	80,328	252,296
Ouachita Parish	157,702	38,128	25,497	3,336	11,841	10,779	85	13,487	1,970	35,808	67,396
Pointe Coupee Parish	20,151	4,251	4,522	372	1,589	1,613	11	2,100	209	3,411	7,902
Rapides Parish	127,189	31,415	21,957	2,749	9,509	8,914	69	11,271	1,471	23,295	50,163
St. Bernard Parish	44,479	11,352	5,942	993	3,272	2,850	24	3,489	579	9,882	18,289
St. James Parish	19,423	4,259	3,824	373	1,510	1,467	11	1,880	213	3,051	9,757
St. John the Baptist Parish	39,864	9,433	6,361	825	3,023	2,800	22	3,504	467	6,207	27,635
St. Martin Parish	51,236	12,263	8,785	1,073	3,874	3,648	28	4,607	583	9,246	18,148
St. Tammany Parish	273,263	63,664	51,114	5,571	20,871	20,143	148	25,701	3,068	29,091	67,025
Tangipahoa Parish	137,048	33,168	21,319	2,902	10,269	9,180	74	11,419	1,728	25,934	52,094
Terrebonne Parish	104,786	25,776	16,865	2,256	7,842	7,250	57	9,089	1,206	17,009	35,573
West Baton Rouge Parish	28,034	6,927	4,202	606	2,087	1,862	15	2,309	339	3,313	13,125

MAINE

American Lung Association in Maine

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Androscoggin	0	0	0	0.0	A
Aroostook	0	0	0	0.0	A
Cumberland	5	0	0	1.7	C
Hancock	5	0	0	1.7	C
Kennebec	0	0	0	0.0	A
Knox	2	0	0	0.7	B
Oxford	0	0	0	0.0	A
Penobscot	0	0	0	0.0	A
Sagadahoc	INC	INC	INC	INC	INC
Washington	0	0	0	0.0	A
York	5	0	0	1.7	C

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Androscoggin	0	0	0	0	0.0	A	5.3	Pass
Aroostook	0	2	0	0	1.0	C	5.4	Pass
Cumberland	0	0	0	0	0.0	A	6.5	Pass
Hancock	0	0	0	0	0.0	A	3.2	Pass
Kennebec	0	0	0	0	0.0	A	5.6	Pass
Knox	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Oxford	1	0	0	0	0.3	B	INC	INC
Penobscot	0	0	0	0	0.0	A	4.5	Pass
Sagadahoc	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Washington	INC	INC	INC	INC	INC	INC	INC	INC
York	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC

MAINE

American Lung Association in Maine

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Androscoggin	113,023	23,100	21,420	1,549	12,024	7,533	72	9,134	1,050	13,750	12,530
Aroostook	67,255	12,410	17,388	832	7,122	5,180	43	6,620	504	10,138	4,589
Cumberland	307,451	54,845	63,488	3,677	33,640	21,495	197	26,312	2,915	19,827	33,442
Hancock	56,701	9,116	15,289	611	6,180	4,470	36	5,725	451	6,064	3,476
Kennebec	125,540	23,414	26,937	1,570	13,521	8,940	80	11,049	1,099	14,916	7,937
Knox	41,164	6,899	11,596	463	4,426	3,279	26	4,239	306	4,194	2,224
Oxford	59,495	10,329	14,187	692	6,440	4,515	38	5,675	474	7,462	3,137
Penobscot	153,704	26,696	31,303	1,790	16,927	10,804	98	13,185	1,419	21,623	10,868
Sagadahoc	37,393	6,618	9,242	444	4,024	2,825	24	3,574	303	3,424	2,229
Washington	31,437	5,811	8,278	390	3,323	2,428	20	3,114	239	4,781	3,579
York	216,732	38,100	48,522	2,554	23,584	15,815	139	19,649	1,868	18,069	14,944

MARYLAND

American Lung Association in Maryland

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Anne Arundel	3	0	0	1.0	C
Baltimore	13	0	0	4.3	F
Calvert	1	0	0	0.3	B
Carroll	2	0	0	0.7	B
Cecil	4	0	0	1.3	C
Charles	1	0	0	0.3	B
Dorchester	1	0	0	0.3	B
Frederick	2	0	0	0.7	B
Garrett	0	0	0	0.0	A
Harford	10	0	0	3.3	F
Howard	DNC	DNC	DNC	DNC	DNC
Kent	1	0	0	0.3	B
Montgomery	4	0	0	1.3	C
Prince George's	7	0	0	2.3	D
Washington	1	0	0	0.3	B
Baltimore City	2	0	0	0.7	B

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Anne Arundel	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Baltimore	1	0	0	0	0.3	B	7.7	Pass
Calvert	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Carroll	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Cecil	1	0	0	0	0.3	B	6.8	Pass
Charles	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Dorchester	0	0	0	0	0.0	A	5.9	Pass
Frederick	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Garrett	0	0	0	0	0.0	A	5.2	Pass
Harford	0	0	0	0	0.0	A	6.7	Pass
Howard	0	0	0	0	0.0	A	6.9	Pass
Kent	0	0	0	0	0.0	A	5.5	Pass
Montgomery	0	0	0	0	0.0	A	6.8	Pass
Prince George's	0	0	0	0	0.0	A	5.9	Pass
Washington	0	0	0	0	0.0	A	6.8	Pass
Baltimore City	0	0	0	0	0.0	A	INC	INC

MARYLAND

American Lung Association in Maryland

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Anne Arundel	593,286	131,687	96,019	7,905	48,336	22,805	263	35,850	6,490	37,624	214,779
Baltimore	846,161	181,618	156,497	10,903	69,383	34,333	374	54,536	9,486	91,009	397,145
Calvert	94,573	21,572	15,601	1,295	7,665	3,719	42	5,875	965	5,011	23,226
Carroll	175,305	38,034	31,678	2,283	14,391	7,200	78	11,447	1,742	9,468	23,672
Cecil	104,942	23,049	18,175	1,384	8,592	4,232	47	6,707	1,077	9,831	18,044
Charles	170,102	40,211	23,629	2,414	13,679	6,263	75	9,766	1,891	13,513	114,113
Dorchester	32,726	6,827	7,560	410	2,699	1,495	14	2,424	320	4,893	12,498
Frederick	287,079	66,036	44,554	3,964	23,178	10,854	127	17,028	3,138	15,874	93,153
Garrett	28,579	5,028	6,899	302	2,458	1,373	13	2,228	261	4,238	1,160
Harford	263,867	58,154	46,276	3,491	21,553	10,611	117	16,820	2,749	19,117	70,778
Howard	335,411	78,927	51,753	4,738	26,918	12,676	149	19,905	3,699	18,867	175,959
Kent	19,320	2,914	5,440	175	1,699	988	9	1,618	182	2,181	4,279
Montgomery	1,052,521	236,869	181,307	14,219	85,450	41,788	467	66,156	11,405	82,175	616,751
Prince George's	946,971	205,699	144,490	12,348	77,766	35,938	420	56,220	10,762	101,043	839,127
Washington	155,590	33,475	28,379	2,010	12,776	6,346	69	10,081	1,521	17,387	39,317
Baltimore City	569,931	115,806	89,369	6,952	47,350	21,200	252	33,010	7,458	104,408	414,722

MASSACHUSETTS

American Lung Association in Massachusetts

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Barnstable	5	0	0	1.7	C
Berkshire	0	0	0	0.0	A
Bristol	6	0	0	2.0	C
Dukes	2	0	0	0.7	B
Essex	4	0	0	1.3	C
Franklin	0	0	0	0.0	A
Hampden	2	0	0	0.7	B
Hampshire	0	0	0	0.0	A
Middlesex	0	0	0	0.0	A
Norfolk	3	0	0	1.0	C
Plymouth	1	0	0	0.3	B
Suffolk	3	0	0	1.0	C
Worcester	1	0	0	0.3	B

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Barnstable	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Berkshire	1	0	0	0	0.3	B	7.5	Pass
Bristol	0	0	0	0	0.0	A	6.4	Pass
Dukes	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Essex	2	0	0	0	0.7	B	6.3	Pass
Franklin	1	0	0	0	0.3	B	7.8	Pass
Hampden	1	0	0	0	0.3	B	6.5	Pass
Hampshire	0	0	0	0	0.0	A	6.3	Pass
Middlesex	1	1	0	0	0.8	B	6.6	Pass
Norfolk	1	0	0	0	0.3	B	INC	INC
Plymouth	1	0	0	0	0.3	B	8.2	Pass
Suffolk	2	0	0	0	0.7	B	7.9	Pass
Worcester	2	0	0	0	0.7	B	8.6	Pass

MASSACHUSETTS

American Lung Association in Massachusetts

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Barnstable	232,457	32,137	77,146	3,277	22,146	14,526	125	23,491	1,512	17,549	25,813
Berkshire	127,859	20,248	32,606	2,065	12,088	6,976	69	10,967	1,053	14,737	16,838
Bristol	580,068	117,179	104,271	11,949	52,823	26,784	311	40,720	5,406	64,988	121,274
Dukes	20,868	3,609	5,636	368	1,932	1,165	11	1,849	152	1,711	2,822
Essex	806,765	166,061	149,634	16,934	72,965	37,457	433	57,146	7,411	77,346	266,682
Franklin	70,894	11,639	17,667	1,187	6,663	3,815	38	5,986	587	9,425	7,498
Hampden	461,041	95,712	84,145	9,760	41,572	21,060	247	32,019	4,395	75,753	185,723
Hampshire	162,588	22,516	31,356	2,296	15,890	7,767	87	11,695	1,951	16,278	28,419
Middlesex	1,617,105	311,444	267,823	31,758	149,259	72,089	867	108,102	16,367	127,726	499,045
Norfolk	725,531	146,795	130,151	14,969	66,024	33,389	389	50,726	6,913	46,348	208,840
Plymouth	533,069	108,719	106,110	11,086	48,237	25,667	286	39,532	4,571	40,237	108,224
Suffolk	766,381	123,201	103,234	12,563	73,761	31,570	411	45,574	9,743	118,607	424,586
Worcester	862,927	175,286	148,313	17,874	78,607	39,152	463	59,222	8,062	88,902	225,839

MICHIGAN

American Lung Association in Michigan

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Allegan	18	2	0	7.0	F
Bay	DNC	DNC	DNC	DNC	DNC
Benzie	3	2	0	2.0	C
Berrien	14	1	0	5.2	F
Cass	8	0	0	2.7	D
Clinton	0	0	0	0.0	A
Genesee	6	0	0	2.0	C
Huron	10	0	0	3.3	F
Ingham	0	0	0	0.0	A
Kalamazoo	6	0	0	2.0	C
Kent	13	0	0	4.3	F
Lenawee	2	0	0	0.7	B
Macomb	17	0	0	5.7	F
Manistee	5	1	0	2.2	D
Mason	5	2	0	2.7	D
Missaukee	2	0	0	0.7	B
Muskegon	19	2	0	7.3	F
Oakland	7	0	0	2.3	D
Ottawa	11	2	0	4.7	F
St. Clair	9	0	0	3.0	D
Schoolcraft	6	0	0	2.0	C
Tuscola	4	0	0	1.3	C
Washtenaw	6	0	0	2.0	C
Wayne	13	0	0	4.3	F
Wexford	5	0	0	1.7	C

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Allegan	2	0	0	0	0.7	B	6.6	Pass
Bay	0	0	0	0	0.0	A	5.8	Pass
Benzie	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Berrien	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Cass	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Clinton	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Genesee	0	0	0	0	0.0	A	7.2	Pass
Huron	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Ingham	0	0	0	0	0.0	A	8.5	Pass
Kalamazoo	3	0	0	0	1.0	C	9.5	Fail
Kent	1	0	0	0	0.3	B	9.2	Fail
Lenawee	0	0	0	0	0.0	A	8.3	Pass
Macomb	0	0	0	0	0.0	A	8.2	Pass
Manistee	0	0	0	0	0.0	A	INC	INC
Mason	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Missaukee	1	0	0	0	0.3	B	8.6	Pass
Muskegon	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Oakland	0	0	0	0	0.0	A	7.5	Pass
Ottawa	1	0	0	0	0.3	B	8.8	Pass
St. Clair	1	0	0	0	0.3	B	8.2	Pass
Schoolcraft	1	0	0	0	0.3	B	INC	INC
Tuscola	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Washtenaw	0	1	0	0	0.5	B	8.7	Pass
Wayne	16	1	0	0	5.8	F	11.7	Fail
Wexford	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC

MICHIGAN

American Lung Association in Michigan

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Allegan	121,210	27,916	22,321	1,903	11,192	8,463	63	9,208	1,142	11,735	15,220
Bay	102,821	19,888	22,545	1,356	9,868	7,739	54	8,633	967	14,566	11,234
Benzie	18,297	3,096	5,173	211	1,779	1,530	10	1,780	146	1,784	1,217
Berrien	152,900	32,253	32,959	2,198	14,350	11,270	80	12,585	1,430	22,507	38,621
Cass	51,403	10,306	11,691	702	4,879	3,947	27	4,426	451	6,135	7,262
Clinton	79,748	16,859	15,216	1,149	7,539	5,705	42	6,223	783	7,186	8,829
Genesee	401,983	88,038	76,263	6,001	37,618	28,412	210	31,035	4,023	65,211	114,049
Huron	31,248	5,897	8,453	402	2,973	2,552	16	2,952	237	3,693	1,690
Ingham	284,108	54,661	42,120	3,726	27,789	17,815	148	18,770	3,642	43,468	88,576
Kalamazoo	261,173	55,106	42,658	3,756	24,836	16,777	137	18,006	3,090	30,887	62,314
Kent	659,083	152,891	99,559	10,421	61,227	41,786	345	44,247	7,363	69,096	182,680
Lenawee	98,567	20,028	20,079	1,365	9,381	7,198	52	7,939	909	10,923	13,897
Macomb	874,195	178,925	160,576	12,196	83,569	62,383	457	67,466	8,869	84,662	212,941
Manistee	25,287	4,182	7,105	285	2,472	2,106	13	2,448	184	3,115	2,905
Mason	29,409	5,737	7,700	391	2,780	2,332	15	2,693	246	2,972	2,801
Missaukee	15,213	3,355	3,316	229	1,409	1,125	8	1,260	129	2,007	1,028
Muskegon	176,565	39,087	32,519	2,664	16,491	12,226	92	13,316	1,720	24,813	43,141
Oakland	1,269,431	253,891	235,012	17,305	122,037	90,941	664	98,428	12,823	102,636	375,252
Ottawa	300,873	68,537	50,139	4,672	27,970	19,565	157	21,072	3,285	23,817	51,434
St. Clair	160,151	32,199	32,875	2,195	15,298	12,043	84	13,230	1,450	20,337	15,080
Schoolcraft	8,188	1,468	2,341	100	786	700	4	813	59	1,033	1,247
Tuscola	52,945	10,583	11,581	721	5,043	4,030	28	4,484	462	6,411	3,975
Washtenaw	366,376	65,770	58,334	4,483	36,340	24,043	192	25,515	4,495	47,071	111,784
Wayne	1,757,043	411,933	292,355	28,078	162,092	116,989	918	125,499	18,599	369,107	896,409
Wexford	34,196	7,695	7,186	524	3,154	2,477	18	2,761	307	4,311	2,262

MINNESOTA

American Lung Association in Minnesota

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Anoka	3	0	0	1.0	C
Becker	1	0	0	0.3	B
Beltrami	DNC	DNC	DNC	DNC	DNC
Carlton	0	0	0	0.0	A
Cass	DNC	DNC	DNC	DNC	DNC
Cook	DNC	DNC	DNC	DNC	DNC
Crow Wing	0	0	0	0.0	A
Dakota	DNC	DNC	DNC	DNC	DNC
Goodhue	0	0	0	0.0	A
Hennepin	0	0	0	0.0	A
Lake	0	0	0	0.0	A
Lyon	0	0	0	0.0	A
Mille Lacs	0	0	0	0.0	A
Olmsted	0	0	0	0.0	A
Ramsey	DNC	DNC	DNC	DNC	DNC
St. Louis	0	0	0	0.0	A
Scott	0	0	0	0.0	A
Stearns	0	0	0	0.0	A
Washington	1	0	0	0.3	B
Wright	2	0	0	0.7	B

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Anoka	2	2	0	0	1.7	C	6.6	Pass
Becker	7	5	0	0	4.8	F	7.2	Pass
Beltrami	5	3	1	0	3.8	F	6.2	Pass
Carlton	4	0	0	0	1.3	C	2.2	Pass
Cass	6	4	1	0	4.7	F	7.8	Pass
Cook	3	1	0	0	1.5	C	2.3	Pass
Crow Wing	2	2	1	0	2.3	D	5.5	Pass
Dakota	2	2	0	0	1.7	C	7.4	Pass
Goodhue	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Hennepin	1	4	0	0	2.3	D	8.0	Pass
Lake	3	1	0	0	1.5	C	4.7	Pass
Lyon	3	4	0	0	3.0	D	6.4	Pass
Mille Lacs	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Olmsted	4	0	0	0	1.3	C	6.0	Pass
Ramsey	3	1	0	0	1.5	C	7.2	Pass
St. Louis	7	2	0	0	3.3	F	5.1	Pass
Scott	1	0	0	0	0.3	B	6.4	Pass
Stearns	3	2	1	0	2.7	D	INC	INC
Washington	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Wright	2	2	0	0	1.7	C	7.0	Pass

MINNESOTA

American Lung Association in Minnesota

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Anoka	368,864	86,409	57,364	4,730	28,267	14,698	184	22,419	4,068	27,085	88,413
Becker	35,371	8,259	8,043	452	2,628	1,604	18	2,610	328	3,430	4,913
Beltrami	46,799	11,485	8,161	629	3,510	1,828	23	2,863	523	7,697	13,415
Carlton	36,708	7,982	6,813	437	2,841	1,576	18	2,466	347	3,580	4,570
Cass	31,274	6,318	8,455	346	2,381	1,584	16	2,630	254	4,265	5,251
Cook	5,708	840	1,770	46	461	315	3	530	50	519	887
Crow Wing	67,948	13,784	16,717	754	5,228	3,265	34	5,345	625	7,126	3,852
Dakota	443,341	105,016	71,368	5,748	33,780	17,711	221	27,197	4,935	26,859	112,282
Goodhue	48,013	10,475	9,973	573	3,677	2,144	24	3,419	474	4,249	4,269
Hennepin	1,260,121	268,313	199,163	14,686	99,504	49,745	627	75,956	15,414	133,681	412,914
Lake	10,939	2,094	3,040	115	843	561	5	935	91	906	603
Lyon	25,262	6,648	4,491	364	1,841	1,002	13	1,576	268	2,764	4,646
Mille Lacs	27,280	6,327	4,977	346	2,072	1,156	14	1,808	273	2,925	3,168
Olmsted	164,020	38,819	27,896	2,125	12,466	6,516	82	10,122	1,922	14,379	37,203
Ramsey	536,413	122,516	86,061	6,706	41,449	20,754	267	31,909	6,577	72,217	217,824
St. Louis	199,532	36,655	42,746	2,006	16,001	8,977	99	14,344	2,212	28,093	18,769
Scott	154,520	39,589	19,466	2,167	11,624	5,758	77	8,525	1,762	6,968	35,095
Stearns	160,405	37,290	26,178	2,041	12,310	6,218	80	9,597	1,855	17,033	29,085
Washington	275,912	65,515	46,258	3,586	20,933	11,271	137	17,410	2,961	15,451	58,284
Wright	148,003	39,864	20,431	2,182	10,871	5,531	74	8,335	1,608	7,779	14,969

MISSISSIPPI

American Lung Association in Mississippi

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Bolivar	0	0	0	0.0	A
DeSoto	7	0	0	2.3	D
Forrest	DNC	DNC	DNC	DNC	DNC
Hancock	0	0	0	0.0	A
Harrison	1	0	0	0.3	B
Hinds	0	0	0	0.0	A
Jackson	1	0	0	0.3	B
Lauderdale	0	0	0	0.0	A
Lee	0	0	0	0.0	A
Yalobusha	0	0	0	0.0	A

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Bolivar	0	0	0	0	0.0	A	8.5	Pass
DeSoto	0	0	0	0	0.0	A	8.7	Pass
Forrest	1	0	0	0	0.3	B	9.9	Fail
Hancock	0	0	0	0	0.0	A	8.5	Pass
Harrison	0	0	0	0	0.0	A	9.1	Fail
Hinds	3	0	0	0	1.0	C	10.1	Fail
Jackson	0	0	0	0	0.0	A	8.2	Pass
Lauderdale	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lee	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Yalobusha	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC

MISSISSIPPI

American Lung Association in Mississippi

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Bolivar	29,370	7,161	5,107	496	2,082	2,338	18	2,702	339	8,072	19,823
DeSoto	191,723	47,568	26,285	3,295	13,597	14,787	116	16,384	2,371	18,722	81,596
Forrest	78,110	17,517	11,094	1,213	5,658	5,838	47	6,395	1,114	16,194	33,442
Hancock	46,094	8,670	10,440	601	3,521	4,286	28	5,178	465	6,839	7,350
Harrison	211,044	49,090	35,506	3,400	15,214	17,034	128	19,518	2,441	39,771	79,506
Hinds	217,730	50,312	35,896	3,485	15,698	17,295	131	19,689	2,743	47,221	166,817
Jackson	144,975	32,676	25,141	2,263	10,570	12,018	88	13,854	1,647	22,460	48,017
Lauderdale	70,904	16,522	13,237	1,144	5,103	5,865	43	6,868	770	16,097	34,841
Lee	82,959	20,580	12,970	1,426	5,870	6,532	50	7,414	968	11,046	30,562
Yalobusha	12,364	2,692	2,678	186	908	1,090	7	1,313	125	2,176	5,234

MISSOURI

American Lung Association in Missouri

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Andrew	1	0	0	0.3	B
Boone	0	0	0	0.0	A
Buchanan	DNC	DNC	DNC	DNC	DNC
Callaway	0	0	0	0.0	A
Cass	2	0	0	0.7	B
Cedar	0	0	0	0.0	A
Clay	9	0	0	3.0	D
Clinton	1	0	0	0.3	B
Greene	0	0	0	0.0	A
Jackson	DNC	DNC	DNC	DNC	DNC
Jasper	1	0	0	0.3	B
Jefferson	8	0	0	2.7	D
Lincoln	2	0	0	0.7	B
Monroe	0	0	0	0.0	A
Perry	2	0	0	0.7	B
St. Charles	13	0	0	4.3	F
Ste. Genevieve	0	0	0	0.0	A
St. Louis	9	0	0	3.0	D
St. Louis City	4	1	0	1.8	C

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Andrew	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Boone	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Buchanan	4	0	0	0	1.3	C	8.1	Pass
Callaway	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Cass	1	0	0	0	0.3	B	6.3	Pass
Cedar	0	0	0	0	0.0	A	6.7	Pass
Clay	0	0	0	0	0.0	A	6.0	Pass
Clinton	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Greene	1	0	0	0	0.3	B	INC	INC
Jackson	7	1	0	0	2.8	D	7.9	Pass
Jasper	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Jefferson	1	1	0	0	0.8	B	8.0	Pass
Lincoln	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Monroe	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Perry	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
St. Charles	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Ste. Genevieve	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
St. Louis	2	0	0	0	0.7	B	7.0	Pass
St. Louis City	6	1	0	0	2.5	D	8.9	Pass

MISSOURI

American Lung Association in Missouri

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Andrew	18,003	4,049	3,632	329	1,455	1,235	11	1,542	178	1,418	1,252
Boone	187,690	37,244	26,059	3,030	16,032	11,158	119	12,678	2,697	29,565	42,125
Buchanan	82,911	18,520	14,693	1,507	6,772	5,396	53	6,550	870	13,932	15,178
Callaway	44,762	9,146	8,093	744	3,749	2,995	29	3,638	465	4,379	4,809
Cass	110,394	25,583	20,020	2,081	8,909	7,279	70	8,924	1,159	8,972	15,522
Cedar	14,601	3,520	3,430	286	1,137	1,038	9	1,339	123	2,351	1,032
Clay	257,033	60,010	39,557	4,882	20,904	15,939	164	18,903	2,983	19,491	55,443
Clinton	21,328	4,852	3,953	395	1,730	1,435	14	1,768	210	2,655	1,490
Greene	303,293	62,165	52,521	5,057	25,388	19,485	193	23,298	3,716	44,048	41,973
Jackson	716,531	164,000	115,576	13,341	58,422	44,831	455	53,439	8,471	105,642	276,298
Jasper	124,075	30,134	20,286	2,451	9,912	7,695	79	9,228	1,402	21,971	21,728
Jefferson	229,336	51,296	38,503	4,173	18,832	14,986	146	18,111	2,433	20,356	15,128
Lincoln	63,155	15,673	9,356	1,275	5,048	3,858	40	4,573	685	6,143	4,817
Monroe	8,652	1,869	2,166	152	694	646	6	838	72	1,162	683
Perry	18,858	4,199	3,833	342	1,527	1,297	12	1,621	185	2,138	1,106
St. Charles	413,803	92,296	70,807	7,508	33,926	26,886	263	32,496	4,539	21,209	61,898
Ste. Genevieve	18,644	3,945	3,949	321	1,528	1,315	12	1,652	169	1,801	1,032
St. Louis	990,414	215,261	191,271	17,511	81,054	66,645	628	82,139	10,944	101,623	353,982
St. Louis City	286,578	51,566	45,084	4,195	24,950	18,330	182	21,399	3,874	59,041	155,294

MONTANA

American Lung Association in Montana

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Custer	INC	INC	INC	INC	INC
Fergus	5	0	0	1.7	C
Flathead	0	0	0	0.0	A
Gallatin	DNC	DNC	DNC	DNC	DNC
Lewis and Clark	1	0	0	0.3	B
Lincoln	DNC	DNC	DNC	DNC	DNC
Missoula	0	0	0	0.0	A
Phillips	1	0	0	0.3	B
Powder River	2	0	0	0.7	B
Ravalli	DNC	DNC	DNC	DNC	DNC
Richland	1	0	0	0.3	B
Rosebud	INC	INC	INC	INC	INC
Silver Bow	DNC	DNC	DNC	DNC	DNC
Yellowstone	DNC	DNC	DNC	DNC	DNC

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Custer	INC	INC	INC	INC	INC	INC	INC	INC
Fergus	13	3	0	0	5.8	F	5.2	Pass
Flathead	13	7	0	0	7.8	F	7.7	Pass
Gallatin	13	0	0	0	4.3	F	3.9	Pass
Lewis and Clark	18	10	0	0	11.0	F	8.4	Pass
Lincoln	17	12	2	1	13.8	F	13.4	Fail
Missoula	25	12	0	0	14.3	F	10.1	Fail
Phillips	4	0	0	0	1.3	C	5.6	Pass
Powder River	15	3	0	0	6.5	F	7.7	Pass
Ravalli	22	18	2	0	17.7	F	7.8	Pass
Richland	3	0	0	0	1.0	C	5.2	Pass
Rosebud	INC	INC	INC	INC	INC	INC	INC	INC
Silver Bow	27	11	0	0	14.5	F	7.8	Pass
Yellowstone	12	3	0	0	5.5	F	7.9	Pass

MONTANA

American Lung Association in Montana

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Custer	12,032	2,321	2,479	145	1,150	649	5	875	116	1,249	1,189
Fergus	11,663	2,423	2,927	151	1,077	669	5	932	100	1,396	764
Flathead	111,814	24,010	23,353	1,501	10,373	5,956	46	8,088	1,063	11,987	9,323
Gallatin	124,857	23,217	17,085	1,451	12,316	5,700	51	7,108	1,532	11,442	12,165
Lewis and Clark	73,832	15,488	15,004	968	6,908	3,905	30	5,273	715	6,649	7,001
Lincoln	21,525	3,800	6,452	238	2,040	1,380	9	1,971	166	3,686	1,804
Missoula	121,041	21,492	20,930	1,344	11,932	6,031	49	7,815	1,454	10,920	14,034
Phillips	4,240	1,010	1,012	63	377	236	2	329	32	630	743
Powder River	1,725	296	523	19	164	111	1	158	12	198	138
Ravalli	47,298	8,710	12,820	544	4,479	2,873	19	4,042	383	5,325	4,040
Richland	11,237	2,833	1,909	177	1,003	543	5	721	105	1,104	1,377
Rosebud	8,088	2,377	1,357	149	680	374	3	499	72	1,424	3,768
Silver Bow	36,068	7,127	7,088	446	3,438	1,889	15	2,525	351	5,658	3,586
Yellowstone	169,852	38,688	30,656	2,418	15,627	8,417	69	11,172	1,748	15,385	25,741

NEBRASKA

American Lung Association in Nebraska

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Douglas	3	0	0	1.0	C
Hall	DNC	DNC	DNC	DNC	DNC
Knox	5	0	0	1.7	C
Lancaster	0	0	0	0.0	A
Sarpy	DNC	DNC	DNC	DNC	DNC
Scotts Bluff	DNC	DNC	DNC	DNC	DNC
Washington	DNC	DNC	DNC	DNC	DNC

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Douglas	4	1	0	0	1.8	C	7.5	Pass
Hall	2	0	0	0	0.7	B	6.2	Pass
Knox	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lancaster	0	0	0	0	0.0	A	6.4	Pass
Sarpy	4	0	0	0	1.3	C	7.8	Pass
Scotts Bluff	1	0	0	0	0.3	B	INC	INC
Washington	1	0	0	0	0.3	B	6.2	Pass

NEBRASKA

American Lung Association in Nebraska

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Douglas	586,327	146,425	83,930	6,864	35,998	22,651	262	32,900	7,727	69,886	190,104
Hall	62,097	16,727	9,903	784	3,701	2,502	28	3,697	719	7,017	23,064
Knox	8,336	2,067	2,116	97	504	421	4	660	75	1,280	1,330
Lancaster	324,756	71,900	50,522	3,370	20,665	12,850	145	18,799	4,466	38,884	65,909
Sarpy	196,553	51,267	25,525	2,403	11,912	7,361	88	10,574	2,544	11,259	42,449
Scotts Bluff	35,603	8,637	7,338	405	2,185	1,619	16	2,466	402	5,280	10,593
Washington	21,167	4,957	4,053	232	1,317	971	9	1,460	229	1,493	1,357

NEVADA

American Lung Association in Nevada

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Churchill	11	1	0	4.2	F
Clark	58	1	0	19.8	F
Douglas	DNC	DNC	DNC	DNC	DNC
Lyon	10	0	0	3.3	F
Washoe	35	2	0	12.7	F
White Pine	5	0	0	1.7	C
Carson City	14	0	0	4.7	F

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Churchill	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Clark	12	7	0	0	7.5	F	10.8	Fail
Douglas	14	36	6	0	26.7	F	9.6	Fail
Lyon	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Washoe	17	33	7	0	26.8	F	11.0	Fail
White Pine	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Carson City	24	24	7	0	24.7	F	8.7	Pass

NEVADA

American Lung Association in Nevada

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Churchill	25,843	5,844	4,999	418	1,996	1,467	13	1,981	236	2,556	7,549
Clark	2,322,985	515,201	366,683	36,856	181,006	124,439	1,146	164,144	24,775	304,986	1,420,834
Douglas	49,628	7,399	16,244	529	4,249	3,755	24	5,334	348	4,170	10,110
Lyon	61,585	12,541	13,343	897	4,916	3,745	30	5,108	545	6,757	17,616
Washoe	496,745	102,060	88,149	7,301	39,406	27,862	245	37,131	5,104	50,322	197,583
White Pine	8,788	1,780	1,747	127	702	518	4	699	69	912	2,579
Carson City	58,130	11,543	12,417	826	4,669	3,529	29	4,801	506	7,235	20,523

NEW HAMPSHIRE

American Lung Association in New Hampshire

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Belknap	0	0	0	0.0	A
Cheshire	0	0	0	0.0	A
Coos	1	0	0	0.3	B
Grafton	0	0	0	0.0	A
Hillsborough	0	0	0	0.0	A
Merrimack	1	0	0	0.3	B
Rockingham	4	0	0	1.3	C

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Belknap	1	0	0	0	0.3	B	4.5	Pass
Cheshire	1	0	0	0	0.3	B	6.6	Pass
Coos	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Grafton	1	0	0	0	0.3	B	5.3	Pass
Hillsborough	2	0	0	0	0.7	B	3.9	Pass
Merrimack	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Rockingham	2	0	0	0	0.7	B	6.0	Pass

NEW HAMPSHIRE

American Lung Association in New Hampshire

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Belknap	64,781	11,095	15,620	498	6,909	3,924	35	5,412	495	5,552	3,732
Cheshire	77,350	13,717	17,356	616	8,298	4,390	42	6,049	664	6,432	5,271
Coos	31,504	5,094	8,136	229	3,378	1,980	17	2,744	220	3,810	1,726
Grafton	91,126	14,459	21,486	649	9,983	5,324	49	7,359	795	8,774	9,158
Hillsborough	426,594	83,023	73,963	3,729	45,566	21,873	229	29,474	3,844	27,790	76,794
Merrimack	156,020	28,600	31,170	1,284	16,746	8,478	84	11,557	1,358	11,090	13,371
Rockingham	319,424	58,456	64,876	2,625	34,078	17,887	172	24,335	2,632	17,191	27,631

NEW JERSEY

American Lung Association in New Jersey

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Atlantic	0	0	0	0.0	A
Bergen	11	0	0	3.7	F
Camden	3	0	0	1.0	C
Cumberland	2	0	0	0.7	B
Essex	2	0	0	0.7	B
Gloucester	6	0	0	2.0	C
Hudson	5	0	0	1.7	C
Hunterdon	0	0	0	0.0	A
Mercer	11	0	0	3.7	F
Middlesex	5	0	0	1.7	C
Monmouth	4	2	0	2.3	D
Morris	0	0	0	0.0	A
Ocean	5	0	0	1.7	C
Passaic	0	0	0	0.0	A
Union	DNC	DNC	DNC	DNC	DNC
Warren	0	0	0	0.0	A

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Atlantic	0	1	0	0	0.5	B	6.3	Pass
Bergen	1	0	0	0	0.3	B	INC	INC
Camden	2	0	0	0	0.7	B	9.1	Fail
Cumberland	0	0	0	0	0.0	A	INC	INC
Essex	2	0	0	0	0.7	B	INC	INC
Gloucester	0	0	0	0	0.0	A	INC	INC
Hudson	0	0	0	0	0.0	A	INC	INC
Hunterdon	0	0	0	0	0.0	A	7.4	Pass
Mercer	2	0	0	0	0.7	B	7.9	Pass
Middlesex	2	0	0	0	0.7	B	7.7	Pass
Monmouth	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Morris	0	0	0	0	0.0	A	INC	INC
Ocean	2	0	0	0	0.7	B	6.6	Pass
Passaic	INC	INC	INC	INC	INC	INC	INC	INC
Union	2	0	0	0	0.7	B	9.0	Pass
Warren	1	0	0	0	0.3	B	7.8	Pass

NEW JERSEY

American Lung Association in New Jersey

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Atlantic	275,638	56,930	54,828	3,629	19,670	12,478	125	19,552	2,880	30,748	123,803
Bergen	952,997	196,727	174,718	12,542	68,203	42,166	434	65,563	10,350	66,461	451,048
Camden	524,907	118,164	87,302	7,533	36,589	21,879	239	33,303	6,020	64,621	242,857
Cumberland	151,356	36,326	24,685	2,316	10,345	6,182	69	9,401	1,564	22,152	84,939
Essex	849,477	197,954	122,609	12,620	58,750	33,757	386	50,540	10,150	128,727	598,604
Gloucester	306,601	64,357	52,035	4,103	21,825	13,103	139	20,043	3,467	22,578	74,859
Hudson	703,366	139,389	90,019	8,886	50,564	27,148	320	38,601	9,428	98,969	505,002
Hunterdon	129,777	24,278	27,387	1,548	9,535	6,200	59	9,905	1,260	5,227	22,296
Mercer	380,688	81,493	62,955	5,195	26,964	16,080	173	24,526	4,329	38,810	208,610
Middlesex	861,418	183,007	140,320	11,667	61,092	36,139	392	54,807	9,919	69,157	526,635
Monmouth	644,098	131,494	124,888	8,383	46,271	29,260	293	46,062	6,574	40,420	164,000
Morris	511,151	103,843	94,230	6,620	36,771	22,801	233	35,570	5,353	22,171	161,266
Ocean	655,735	161,552	149,822	10,299	44,146	29,955	298	47,874	5,938	72,554	109,668
Passaic	513,936	120,185	81,941	7,662	35,442	20,988	234	31,822	5,799	62,652	314,439
Union	569,815	132,045	87,296	8,418	39,521	23,226	259	35,271	6,414	54,080	355,389
Warren	110,926	21,073	22,003	1,343	8,109	5,135	51	8,086	1,122	7,628	25,885

NEW MEXICO

American Lung Association in New Mexico

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Bernalillo	34	1	0	11.8	F
Doña Ana	43	6	0	17.3	F
Eddy	62	2	0	21.7	F
Lea	6	1	0	2.5	D
Rio Arriba	2	0	0	0.7	B
Sandoval	9	0	0	3.0	D
San Juan	15	0	0	5.0	F
Santa Fe	3	0	0	1.0	C
Taos	DNC	DNC	DNC	DNC	DNC
Valencia	4	0	0	1.3	C

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Bernalillo	12	4	0	0	6.0	F	9.6	Fail
Doña Ana	8	3	0	0	4.2	F	8.9	Pass
Eddy	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lea	1	0	0	0	0.3	B	6.3	Pass
Rio Arriba	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Sandoval	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
San Juan	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Santa Fe	1	0	0	0	0.3	B	4.3	Pass
Taos	1	0	0	0	0.3	B	5.5	Pass
Valencia	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC

NEW MEXICO

American Lung Association in New Mexico

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Bernalillo	672,508	136,095	121,749	13,187	55,985	29,253	185	45,651	7,215	92,866	422,970
Doña Ana	223,337	51,624	37,433	5,002	17,901	8,897	61	13,791	2,482	50,613	165,037
Eddy	60,400	15,862	9,092	1,537	4,644	2,313	17	3,573	603	7,904	34,408
Lea	72,452	21,307	8,332	2,065	5,324	2,410	20	3,640	743	12,954	49,986
Rio Arriba	40,048	8,961	8,725	868	3,253	1,918	11	3,058	357	7,214	34,866
Sandoval	153,501	33,253	30,489	3,222	12,568	7,019	42	11,083	1,502	15,683	90,657
San Juan	120,418	30,195	20,154	2,926	9,417	4,920	33	7,670	1,206	26,630	77,459
Santa Fe	155,664	25,170	42,963	2,439	13,676	8,682	43	14,046	1,365	18,396	88,084
Taos	34,580	5,593	10,209	542	3,041	2,015	9	3,280	277	6,319	22,129
Valencia	78,080	17,809	14,663	1,726	6,297	3,447	21	5,422	748	14,404	54,229

NEW YORK

American Lung Association in New York

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Albany	0	0	0	0.0	A
Bronx	9	0	0	3.0	D
Chautauqua	5	0	0	1.7	C
Dutchess	1	0	0	0.3	B
Erie	2	0	0	0.7	B
Essex	2	0	0	0.7	B
Hamilton	0	0	0	0.0	A
Jefferson	0	0	0	0.0	A
Kings	DNC	DNC	DNC	DNC	DNC
Monroe	2	0	0	0.7	B
New York	8	0	0	2.7	D
Niagara	2	0	0	0.7	B
Onondaga	0	0	0	0.0	A
Orange	0	0	0	0.0	A
Oswego	0	0	0	0.0	A
Putnam	1	0	0	0.3	B
Queens	14	0	0	4.7	F
Richmond	8	0	0	2.7	D
Rockland	0	0	0	0.0	A
Saratoga	0	0	0	0.0	A
Steuben	0	0	0	0.0	A
Suffolk	24	1	0	8.5	F
Tompkins	1	0	0	0.3	B
Wayne	1	0	0	0.3	B
Westchester	6	0	0	2.0	C

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Albany	5	0	0	0	1.7	C	7.3	Pass
Bronx	0	1	0	0	0.5	B	8.1	Pass
Chautauqua	0	0	0	0	0.0	A	5.8	Pass
Dutchess	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Erie	1	1	0	0	0.8	B	7.1	Pass
Essex	0	0	0	0	0.0	A	3.5	Pass
Hamilton	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Jefferson	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Kings	0	0	0	0	0.0	A	INC	INC
Monroe	0	0	0	0	0.0	A	6.5	Pass
New York	0	0	0	0	0.0	A	INC	INC
Niagara	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Onondaga	1	0	0	0	0.3	B	6.1	Pass
Orange	0	0	0	0	0.0	A	INC	INC
Oswego	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Putnam	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Queens	0	1	0	0	0.5	B	7.4	Pass
Richmond	0	0	0	0	0.0	A	INC	INC
Rockland	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Saratoga	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Steuben	1	0	0	0	0.3	B	5.7	Pass
Suffolk	0	0	0	0	0.0	A	INC	INC
Tompkins	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Wayne	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Westchester	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC

NEW YORK

American Lung Association in New York

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Albany	315,811	55,855	58,271	4,628	26,942	13,516	153	21,003	3,626	41,781	95,333
Bronx	1,379,946	334,805	199,305	27,741	109,179	51,816	666	80,188	15,450	372,320	1,260,207
Chautauqua	126,027	25,247	27,707	2,092	10,426	5,939	61	9,375	1,153	21,515	17,327
Dutchess	297,545	53,776	57,962	4,456	25,383	13,532	144	21,244	2,947	25,435	93,290
Erie	950,312	188,519	184,854	15,620	79,022	41,909	460	65,638	9,676	122,456	252,296
Essex	36,910	5,706	9,751	473	3,219	1,984	18	3,157	295	4,576	2,658
Hamilton	5,118	636	1,739	53	459	323	2	520	34	546	302
Jefferson	116,637	27,397	17,771	2,270	9,252	4,320	57	6,644	1,136	15,329	22,525
Kings	2,590,516	572,893	404,929	47,467	209,909	100,376	1,251	155,198	30,181	508,254	1,639,413
Monroe	752,035	150,986	142,139	12,510	62,372	32,593	364	50,958	7,877	100,844	233,797
New York	1,596,273	223,884	293,598	18,550	142,215	69,226	771	107,105	20,470	266,257	870,645
Niagara	210,880	41,266	44,168	3,419	17,601	9,798	102	15,443	1,981	29,821	34,204
Onondaga	468,249	97,115	88,503	8,047	38,527	20,277	226	31,737	4,822	61,353	115,440
Orange	405,941	102,874	59,782	8,524	31,706	15,462	197	24,038	4,075	57,032	164,454
Oswego	118,287	24,055	21,535	1,993	9,821	5,128	57	8,032	1,151	19,649	8,220
Putnam	98,045	18,672	18,938	1,547	8,289	4,490	48	7,072	903	6,116	25,994
Queens	2,278,029	442,591	409,990	36,671	191,284	98,478	1,102	153,955	23,970	295,825	1,734,068
Richmond	491,133	104,850	85,466	8,687	40,329	20,824	238	32,594	4,954	54,478	213,267
Rockland	339,022	99,211	53,868	8,220	24,954	12,793	164	19,974	3,115	48,087	128,931
Saratoga	238,797	44,869	48,242	3,718	20,178	11,033	116	17,369	2,294	15,356	25,825
Steuben	92,599	19,570	19,461	1,621	7,576	4,277	45	6,751	828	11,667	6,420
Suffolk	1,525,465	309,450	277,424	25,640	126,985	66,887	739	104,973	14,710	100,921	543,708
Tompkins	104,777	14,350	17,175	1,189	9,351	4,179	51	6,375	1,434	14,405	24,314
Wayne	91,125	18,927	19,092	1,568	7,502	4,243	44	6,704	797	10,101	9,999
Westchester	990,427	206,814	182,382	17,136	81,720	43,297	479	67,961	9,885	90,385	480,654

NORTH CAROLINA

American Lung Association in North Carolina

	HIGH OZONE DAYS 2020–2022					HIGH PARTICLE POLLUTION DAYS 2020–2022							
						24-Hour						Annual	
County	Orange	Red	Purple	Wgt. Avg.	Grade	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Alexander	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Avery	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Buncombe	0	0	0	0.0	A	0	0	0	0	0.0	A	5.8	Pass
Caldwell	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Carteret	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Caswell	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Catawba	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	8.2	Pass
Cumberland	1	0	0	0.3	B	1	0	0	0	0.3	B	7.6	Pass
Davidson	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	8.8	Pass
Durham	0	0	0	0.0	A	0	0	0	0	0.0	A	7.3	Pass
Edgecombe	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Forsyth	0	0	0	0.0	A	4	0	0	0	1.3	C	8.4	Pass
Graham	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Granville	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Guilford	0	0	0	0.0	A	0	0	0	0	0.0	A	7.4	Pass
Haywood	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Jackson	DNC	DNC	DNC	DNC	DNC	INC	INC	INC	INC	INC	INC	INC	INC
Johnston	1	0	0	0.3	B	0	0	0	0	0.0	A	7.2	Pass
Lenoir	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lincoln	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Macon	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Martin	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Mecklenburg	3	0	0	1.0	C	3	0	0	0	1.0	C	8.7	Pass
Mitchell	DNC	DNC	DNC	DNC	DNC	1	0	0	0	0.3	B	5.8	Pass
Montgomery	0	0	0	0.0	A	1	0	0	0	0.3	B	7.6	Pass
New Hanover	0	0	0	0.0	A	0	0	0	0	0.0	A	4.4	Pass
Northampton	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	6.7	Pass
Person	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Pitt	0	0	0	0.0	A	0	0	0	0	0.0	A	6.1	Pass
Rockingham	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Rowan	0	0	0	0.0	A	0	0	0	0	0.0	A	7.7	Pass
Swain	0	0	0	0.0	A	2	0	0	0	0.7	B	6.0	Pass
Union	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Wake	1	0	0	0.3	B	1	0	0	0	0.3	B	6.9	Pass
Yancey	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC

NORTH CAROLINA

American Lung Association in North Carolina

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Alexander	36,512	7,155	7,628	822	2,738	2,458	21	3,224	335	4,854	5,199
Avery	17,571	2,501	4,167	287	1,405	1,284	10	1,693	155	2,288	2,044
Buncombe	273,589	47,788	59,079	5,492	20,989	18,494	154	24,234	3,080	32,755	47,226
Caldwell	80,492	15,713	17,125	1,806	6,047	5,497	46	7,222	774	12,850	11,537
Carteret	69,380	11,570	18,943	1,330	5,418	5,430	39	7,274	589	8,260	9,275
Caswell	22,614	4,044	5,322	465	1,734	1,623	13	2,147	188	3,515	8,875
Catawba	163,462	34,969	31,004	4,018	11,962	10,380	92	13,518	1,683	19,702	43,026
Cumberland	336,699	84,140	44,027	9,669	23,231	16,746	190	21,033	4,012	50,909	200,256
Davidson	172,586	36,934	33,092	4,244	12,640	11,072	98	14,439	1,752	21,311	39,038
Durham	332,680	64,171	49,180	7,374	24,746	18,373	187	23,217	4,486	35,109	187,785
Edgecombe	48,301	10,915	10,219	1,254	3,482	3,156	27	4,156	502	9,969	31,204
Forsyth	389,157	86,877	66,754	9,984	28,037	23,074	219	29,766	4,509	55,366	175,710
Graham	7,980	1,569	1,936	180	599	571	5	760	74	1,167	1,194
Granville	61,903	12,383	11,207	1,423	4,612	3,937	35	5,101	605	6,631	27,144
Guilford	546,101	118,118	88,505	13,574	39,627	31,577	307	40,462	6,738	85,573	286,931
Haywood	62,609	10,916	16,027	1,254	4,832	4,674	35	6,228	587	7,163	5,647
Jackson	42,955	6,884	9,019	791	3,341	2,829	24	3,686	510	6,916	8,456
Johnston	234,778	57,226	33,139	6,576	16,472	12,957	133	16,488	2,623	23,285	85,279
Lenoir	54,633	12,385	11,856	1,423	3,939	3,622	31	4,780	535	11,408	28,457
Lincoln	93,095	19,011	17,957	2,185	6,913	6,100	53	7,956	916	8,267	15,539
Macon	38,065	6,846	11,128	787	2,924	3,014	21	4,066	322	4,662	4,824
Martin	21,508	4,327	5,551	497	1,607	1,584	12	2,118	197	4,340	10,317
Mecklenburg	1,145,392	256,574	139,268	29,484	81,970	58,787	646	73,377	15,056	115,511	631,421
Mitchell	15,094	2,774	3,857	319	1,152	1,122	9	1,496	134	2,356	1,439
Montgomery	25,894	5,362	5,758	616	1,916	1,772	15	2,340	249	4,139	9,483
New Hanover	234,921	40,801	45,528	4,689	17,999	15,048	132	19,508	2,849	26,876	53,098
Northampton	16,779	2,928	4,920	336	1,299	1,348	9	1,818	135	3,229	10,111
Person	39,386	8,035	8,309	923	2,927	2,664	22	3,501	381	5,397	13,595
Pitt	173,542	36,569	25,870	4,202	12,618	9,413	97	11,921	2,374	32,848	82,071
Rockingham	91,957	18,489	19,732	2,125	6,859	6,272	52	8,252	900	15,436	26,479
Rowan	149,645	32,480	27,140	3,732	10,894	9,258	85	12,008	1,561	21,651	45,288
Swain	13,967	3,103	2,735	357	1,011	887	8	1,160	147	1,846	5,798
Union	249,070	62,851	34,328	7,223	17,316	13,813	141	17,590	2,702	17,565	77,591
Wake	1,175,021	266,490	153,110	30,624	84,012	62,718	664	78,944	14,588	86,727	490,299
Yancey	18,811	3,322	5,036	382	1,449	1,433	11	1,918	170	2,766	1,555

NORTH DAKOTA

American Lung Association in North Dakota

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Billings	1	0	0	0.3	B
Burke	0	0	0	0.0	A
Burleigh	0	0	0	0.0	A
Cass	1	0	0	0.3	B
Dunn	1	0	0	0.3	B
McKenzie	0	0	0	0.0	A
Mercer	1	0	0	0.3	B
Oliver	2	0	0	0.7	B
Ward	0	0	0	0.0	A

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Billings	3	1	0	0	1.5	C	4.9	Pass
Burke	7	2	0	0	3.3	F	6.4	Pass
Burleigh	11	5	0	0	6.2	F	7.7	Pass
Cass	8	9	0	0	7.2	F	8.3	Pass
Dunn	6	3	0	0	3.5	F	5.8	Pass
McKenzie	6	2	0	0	3.0	D	5.4	Pass
Mercer	5	4	0	0	3.7	F	6.0	Pass
Oliver	9	6	0	0	6.0	F	7.2	Pass
Ward	10	4	0	0	5.3	F	6.3	Pass

NORTH DAKOTA

American Lung Association in North Dakota

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Billings	1,018	210	246	14	83	54	1	85	10	102	87
Burke	2,155	533	488	35	165	109	1	172	19	207	186
Burleigh	99,280	22,999	17,968	1,496	7,907	4,563	51	6,909	1,173	9,332	12,484
Cass	192,734	42,124	25,220	2,741	15,994	7,701	98	11,042	2,797	21,797	32,400
Dunn	4,015	1,061	744	69	304	184	2	282	40	450	863
McKenzie	13,908	4,489	1,420	292	992	485	7	684	164	1,188	3,570
Mercer	8,333	1,919	1,897	125	650	433	4	679	79	587	684
Oliver	1,856	444	475	29	143	100	1	160	16	179	118
Ward	68,870	16,466	9,833	1,071	5,528	2,810	35	4,105	872	6,529	12,843

OHIO

American Lung Association in Ohio

	HIGH OZONE DAYS 2020–2022					HIGH PARTICLE POLLUTION DAYS 2020–2022							
						24-Hour						Annual	
County	Orange	Red	Purple	Wgt. Avg.	Grade	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Allen	1	0	0	0.3	B	0	0	0	0	0.0	A	6.4	Pass
Ashtabula	7	0	0	2.3	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Athens	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	5.9	Pass
Belmont	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	INC	INC
Butler	9	0	0	3.0	D	1	0	0	0	0.3	B	INC	INC
Clark	2	0	0	0.7	B	0	0	0	0	0.0	A	8.4	Pass
Clermont	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Clinton	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Cuyahoga	16	1	0	5.8	F	3	1	0	0	1.5	C	9.3	Fail
Delaware	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Fayette	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Franklin	3	0	0	1.0	C	1	0	0	0	0.3	B	8.8	Pass
Geauga	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Greene	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Hamilton	12	1	0	4.5	F	3	0	0	0	1.0	C	10.5	Fail
Harrison	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	INC	INC
Jefferson	1	0	0	0.3	B	2	1	0	0	1.2	C	INC	INC
Knox	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lake	17	0	0	5.7	F	0	0	0	0	0.0	A	6.4	Pass
Lawrence	0	0	0	0.0	A	0	0	0	0	0.0	A	8.1	Pass
Licking	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lorain	1	0	0	0.3	B	INC	INC	INC	INC	INC	INC	INC	INC
Lucas	16	0	0	5.3	F	1	0	0	0	0.3	B	INC	INC
Madison	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Mahoning	2	0	0	0.7	B	1	0	0	0	0.3	B	INC	INC
Medina	2	0	0	0.7	B	0	0	0	0	0.0	A	6.6	Pass
Miami	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Montgomery	7	0	0	2.3	D	0	0	0	0	0.0	A	9.4	Fail
Noble	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Portage	5	1	0	2.2	D	0	0	0	0	0.0	A	INC	INC
Preble	3	0	0	1.0	C	0	0	0	0	0.0	A	8.1	Pass
Scioto	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	INC	INC
Stark	7	0	0	2.3	D	2	0	0	0	0.7	B	9.2	Fail
Summit	5	0	0	1.7	C	4	0	0	0	1.3	C	8.4	Pass
Trumbull	3	0	0	1.0	C	4	1	0	0	1.8	C	7.4	Pass
Warren	9	0	0	3.0	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Washington	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Wood	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC

OHIO

American Lung Association in Ohio

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Allen	101,115	23,592	19,202	1,607	8,876	7,405	59	8,737	1,025	12,570	20,149
Ashtabula	97,014	21,012	19,788	1,432	8,686	7,534	57	8,969	898	16,280	11,523
Athens	58,979	8,857	9,283	603	5,810	4,168	34	4,669	816	11,625	5,975
Belmont	65,509	12,231	14,458	833	6,069	5,306	38	6,360	590	10,591	5,441
Butler	388,420	89,677	63,066	6,110	34,512	27,165	226	31,210	4,378	44,146	88,501
Clark	134,831	30,036	27,404	2,046	11,966	10,302	78	12,271	1,367	19,944	22,998
Clermont	210,805	46,277	39,010	3,153	18,904	15,733	123	18,438	2,180	18,724	16,057
Clinton	41,964	9,317	7,905	635	3,746	3,133	24	3,683	436	4,970	3,223
Cuyahoga	1,236,041	250,777	242,560	17,086	112,839	93,731	718	110,473	13,749	201,450	522,591
Delaware	226,296	55,396	34,411	3,774	19,823	15,795	132	18,043	2,469	10,385	42,578
Fayette	28,839	6,719	5,291	458	2,541	2,127	17	2,497	297	4,166	2,485
Franklin	1,321,820	303,005	174,828	20,645	118,640	85,072	770	94,322	16,830	195,678	528,728
Geauga	95,469	21,009	21,332	1,431	8,461	7,696	56	9,311	841	5,997	4,769
Greene	168,456	34,488	31,523	2,350	15,374	12,431	98	14,534	1,878	15,145	28,244
Hamilton	825,037	186,440	138,701	12,703	73,603	57,722	480	66,579	9,532	124,767	297,168
Harrison	14,378	2,989	3,260	204	1,294	1,171	8	1,416	135	1,962	860
Jefferson	64,330	12,416	14,642	846	5,897	5,224	37	6,302	648	11,626	6,703
Knox	63,183	14,273	12,223	972	5,597	4,687	37	5,538	660	7,287	3,258
Lake	231,842	44,145	50,758	3,008	21,394	18,767	135	22,482	2,312	20,444	32,220
Lawrence	56,653	12,144	11,137	827	5,100	4,363	33	5,159	580	9,583	3,225
Licking	181,359	41,150	31,811	2,804	16,152	13,256	106	15,424	1,917	18,074	24,358
Lorain	316,268	67,724	63,044	4,614	28,446	24,331	184	28,836	3,203	39,513	73,317
Lucas	426,643	96,670	75,204	6,587	37,962	30,662	248	35,675	4,763	74,533	140,288
Madison	43,540	8,715	7,302	594	4,030	3,231	26	3,713	403	3,926	5,447
Mahoning	225,636	45,401	50,746	3,093	20,472	18,062	131	21,785	2,227	41,912	56,224
Medina	183,512	38,799	36,469	2,644	16,582	14,320	107	16,958	1,811	12,288	13,345
Miami	110,247	25,054	21,544	1,707	9,750	8,308	64	9,841	1,104	10,693	10,049
Montgomery	533,892	116,630	100,283	7,946	47,840	39,169	310	45,969	5,915	74,391	165,041
Noble	14,335	2,697	4,276	184	1,296	1,327	9	1,674	100	1,835	843
Portage	161,745	29,015	29,530	1,977	15,285	12,169	94	14,098	1,931	19,299	19,634
Preble	40,596	8,942	8,236	609	3,619	3,153	24	3,753	393	4,221	1,778
Scioto	72,194	15,549	13,790	1,059	6,495	5,421	42	6,379	742	15,113	5,302
Stark	372,657	79,440	76,827	5,413	33,471	28,750	217	34,253	3,816	48,044	54,766
Summit	535,882	109,628	105,152	7,469	48,840	40,977	312	48,326	5,736	66,303	134,075
Trumbull	200,643	40,959	45,205	2,791	18,138	16,129	117	19,472	1,939	31,959	27,980
Warren	249,778	58,741	39,478	4,002	22,129	17,762	146	20,371	2,593	13,373	41,301
Washington	58,901	11,411	13,243	777	5,400	4,772	34	5,746	586	8,812	3,162
Wood	131,592	26,431	21,857	1,801	12,137	9,234	77	10,563	1,609	15,268	17,114

OKLAHOMA

American Lung Association in Oklahoma

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Adair	2	0	0	0.7	B
Canadian	6	0	0	2.0	C
Carter	INC	INC	INC	INC	INC
Cleveland	3	0	0	1.0	C
Comanche	2	0	0	0.7	B
Creek	3	0	0	1.0	C
Dewey	3	0	0	1.0	C
Johnston	INC	INC	INC	INC	INC
Kay	INC	INC	INC	INC	INC
Kiowa	INC	INC	INC	INC	INC
Love	INC	INC	INC	INC	INC
McClain	INC	INC	INC	INC	INC
Mayes	1	0	0	0.3	B
Nowata	INC	INC	INC	INC	INC
Oklahoma	10	0	0	3.3	F
Osage	5	2	0	2.7	D
Ottawa	6	0	0	2.0	C
Pittsburg	3	0	0	1.0	C
Pontotoc	INC	INC	INC	INC	INC
Sequoyah	1	0	0	0.3	B
Tulsa	13	3	0	5.8	F
Washington	INC	INC	INC	INC	INC

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Adair	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Canadian	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Carter	2	1	0	0	1.2	C	8.7	Pass
Cleveland	6	0	0	0	2.0	C	10.3	Fail
Comanche	3	0	0	0	1.0	C	8.0	Pass
Creek	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Dewey	1	0	0	0	0.3	B	7.7	Pass
Johnston	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Kay	9	1	0	0	3.5	F	9.9	Fail
Kiowa	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Love	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
McClain	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Mayes	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Nowata	INC	INC	INC	INC	INC	INC	INC	INC
Oklahoma	5	0	0	0	1.7	C	10.1	Fail
Osage	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Ottawa	12	3	0	0	5.5	F	INC	INC
Pittsburg	7	0	0	0	2.3	D	8.9	Pass
Pontotoc	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Sequoyah	1	0	0	0	0.3	B	7.7	Pass
Tulsa	6	1	0	0	2.5	D	9.2	Fail
Washington	INC	INC	INC	INC	INC	INC	INC	INC

OKLAHOMA

American Lung Association in Oklahoma

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Adair	19,576	5,173	3,097	507	1,788	1,198	11	1,681	214	4,014	12,022
Canadian	169,149	42,988	23,213	4,212	15,641	9,707	95	13,324	2,112	14,428	47,690
Carter	48,510	12,109	8,288	1,186	4,506	3,038	27	4,275	550	7,436	15,690
Cleveland	299,587	60,307	45,068	5,909	29,589	18,145	169	24,868	4,050	37,908	92,807
Comanche	123,046	29,313	16,778	2,872	11,597	6,990	70	9,525	1,467	17,939	55,684
Creek	72,699	16,754	13,468	1,642	6,926	4,802	41	6,810	792	10,554	18,911
Dewey	4,401	1,170	827	115	399	282	2	403	43	611	916
Johnston	10,406	2,454	1,953	240	982	677	6	960	114	2,080	3,467
Kay	43,668	10,784	8,436	1,057	4,057	2,830	25	4,029	465	6,820	12,367
Kiowa	8,345	2,028	1,701	199	781	565	5	812	83	1,872	2,343
Love	10,218	2,477	1,940	243	956	666	6	947	110	1,363	3,340
McClain	45,306	11,223	7,088	1,100	4,229	2,788	26	3,892	519	4,499	10,633
Mayes	39,589	9,104	7,506	892	3,772	2,632	22	3,740	431	6,977	14,666
Nowata	9,483	2,224	1,864	218	898	641	5	916	97	1,476	3,383
Oklahoma	802,559	200,456	117,422	19,641	74,549	46,914	452	64,735	10,077	125,992	370,153
Osage	45,839	9,427	9,945	924	4,498	3,272	26	4,705	458	6,270	16,979
Ottawa	30,338	7,592	5,494	744	2,811	1,926	17	2,726	336	5,806	11,319
Pittsburg	43,613	9,934	8,829	973	4,158	2,951	25	4,218	434	7,068	14,137
Pontotoc	38,141	9,518	6,527	933	3,538	2,359	21	3,315	447	5,262	14,139
Sequoyah	39,667	9,386	7,393	920	3,749	2,619	22	3,721	428	8,282	15,530
Tulsa	677,358	167,056	104,516	16,369	63,175	40,591	382	56,359	8,309	102,568	275,658
Washington	53,242	12,734	10,675	1,248	4,996	3,526	30	5,037	578	7,268	15,524

OREGON

American Lung Association in Oregon

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Clackamas	5	1	0	2.2	D
Columbia	0	0	0	0.0	A
Crook	DNC	DNC	DNC	DNC	DNC
Harney	DNC	DNC	DNC	DNC	DNC
Jackson	3	0	0	1.0	C
Josephine	DNC	DNC	DNC	DNC	DNC
Klamath	DNC	DNC	DNC	DNC	DNC
Lake	DNC	DNC	DNC	DNC	DNC
Lane	1	0	0	0.3	B
Marion	3	0	0	1.0	C
Multnomah	3	0	0	1.0	C
Umatilla	1	0	0	0.3	B
Washington	1	0	0	0.3	B

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Clackamas	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Columbia	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Crook	2	1	0	2	2.8	D	10.0	Fail
Harney	9	12	0	1	9.8	F	10.8	Fail
Jackson	4	8	1	1	6.8	F	13.5	Fail
Josephine	0	4	0	1	2.8	D	INC	INC
Klamath	42	46	1	2	39.3	F	15.6	Fail
Lake	10	3	0	0	4.8	F	INC	INC
Lane	18	26	13	13	38.5	F	14.7	Fail
Marion	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Multnomah	1	2	0	1	2.2	D	8.1	Pass
Umatilla	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Washington	0	1	1	1	2.0	C	8.1	Pass

OREGON

American Lung Association in Oregon

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Clackamas	423,177	87,301	84,709	6,067	38,823	23,145	176	33,566	3,669	34,381	88,309
Columbia	53,588	10,839	10,929	753	4,949	2,990	22	4,348	437	5,957	7,300
Crook	26,375	5,167	6,708	359	2,442	1,602	11	2,417	198	2,786	3,463
Harney	7,515	1,455	1,979	101	696	460	3	698	54	1,095	1,089
Jackson	221,644	44,922	51,629	3,122	20,308	12,669	92	18,852	1,855	27,349	47,968
Josephine	87,730	16,622	23,936	1,155	8,165	5,481	37	8,360	643	15,571	13,190
Klamath	70,212	15,367	15,664	1,068	6,307	3,900	29	5,780	563	10,752	16,997
Lake	8,385	1,610	2,171	112	780	516	4	781	54	1,291	1,484
Lane	382,353	66,030	81,012	4,589	36,325	21,129	159	30,704	3,658	56,320	75,815
Marion	346,703	81,028	58,491	5,631	30,654	17,025	145	24,094	3,140	45,903	129,433
Multnomah	795,083	138,094	119,340	9,597	75,927	39,289	332	53,762	8,720	94,900	258,437
Umatilla	80,215	19,454	13,245	1,352	7,011	3,879	34	5,481	664	8,917	29,156
Washington	600,176	127,723	89,851	8,877	54,664	28,991	250	40,016	5,946	45,303	227,194

PENNSYLVANIA

American Lung Association in Pennsylvania

	HIGH OZONE DAYS 2020–2022					HIGH PARTICLE POLLUTION DAYS 2020–2022							
						24-Hour						Annual	
County	Orange	Red	Purple	Wgt. Avg.	Grade	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Adams	1	0	0	0.3	B	2	0	0	0	0.7	B	INC	INC
Allegheny	8	0	0	2.7	D	18	2	0	0	7.0	F	10.9	Fail
Armstrong	5	0	0	1.7	C	1	0	0	0	0.3	B	8.9	Pass
Beaver	2	0	0	0.7	B	3	0	0	0	1.0	C	8.6	Pass
Berks	5	0	0	1.7	C	3	0	0	0	1.0	C	8.1	Pass
Blair	1	0	0	0.3	B	1	0	0	0	0.3	B	8.3	Pass
Bradford	0	0	0	0.0	A	1	0	0	0	0.3	B	INC	INC
Bucks	16	0	0	5.3	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Cambria	1	0	0	0.3	B	1	0	0	0	0.3	B	9.6	Fail
Centre	0	0	0	0.0	A	1	0	0	0	0.3	B	7.8	Pass
Chester	0	0	0	0.0	A	3	0	0	0	1.0	C	8.5	Pass
Clearfield	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Cumberland	DNC	DNC	DNC	DNC	DNC	4	0	0	0	1.3	C	7.6	Pass
Dauphin	1	0	0	0.3	B	7	0	0	0	2.3	D	9.9	Fail
Delaware	2	0	0	0.7	B	4	0	0	0	1.3	C	9.1	Fail
Elk	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Erie	0	0	0	0.0	A	0	0	0	0	0.0	A	INC	INC
Fayette	0	0	0	0.0	A	1	0	0	0	0.3	B	INC	INC
Franklin	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Greene	1	0	0	0.3	B	1	0	0	0	0.3	B	INC	INC
Indiana	3	0	0	1.0	C	1	0	0	0	0.3	B	INC	INC
Lackawanna	0	0	0	0.0	A	1	0	0	0	0.3	B	7.5	Pass
Lancaster	1	0	0	0.3	B	17	2	0	0	6.7	F	9.2	Fail
Lawrence	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lebanon	INC	INC	INC	INC	INC	4	0	0	0	1.3	C	INC	INC
Lehigh	0	0	0	0.0	A	0	1	0	0	0.5	B	8.7	Pass
Luzerne	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lycoming	0	0	0	0.0	A	2	0	0	0	0.7	B	INC	INC
Mercer	4	0	0	1.3	C	1	0	0	0	0.3	B	INC	INC
Monroe	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Montgomery	5	0	0	1.7	C	2	0	0	0	0.7	B	8.2	Pass
Northampton	3	0	0	1.0	C	4	0	0	0	1.3	C	8.1	Pass
Philadelphia	15	1	0	5.5	F	3	1	0	0	1.5	C	9.1	Fail
Somerset	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Susquehanna	DNC	DNC	DNC	DNC	DNC	2	0	0	0	0.7	B	INC	INC
Tioga	0	0	0	0.0	A	1	0	0	0	0.3	B	INC	INC
Washington	0	0	0	0.0	A	1	0	0	0	0.3	B	8.5	Pass
Westmoreland	0	0	0	0.0	A	1	0	0	0	0.3	B	INC	INC
Wyoming	DNC	DNC	DNC	DNC	DNC	1	0	0	0	0.3	B	INC	INC
York	0	0	0	0.0	A	3	0	0	0	1.0	C	9.6	Fail

PENNSYLVANIA

American Lung Association in Pennsylvania

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Adams	106,027	20,235	23,117	2,007	8,721	6,676	55	9,718	976	8,731	12,442
Allegheny	1,233,253	226,322	251,498	22,446	103,039	74,775	635	106,553	12,874	135,204	281,102
Armstrong	64,747	12,210	15,538	1,211	5,307	4,256	33	6,350	543	7,982	2,205
Beaver	165,677	31,752	37,934	3,149	13,579	10,588	85	15,616	1,480	16,640	19,401
Berks	430,449	93,693	78,368	9,292	34,486	24,980	222	34,996	4,251	45,310	137,832
Blair	121,032	24,113	26,311	2,391	9,856	7,515	62	10,958	1,124	15,337	7,552
Bradford	59,866	13,116	13,513	1,301	4,733	3,729	31	5,529	506	7,360	2,832
Bucks	645,054	126,822	133,370	12,578	52,719	40,238	333	57,915	5,896	37,561	116,492
Cambria	131,441	25,026	31,766	2,482	10,764	8,531	68	12,756	1,144	20,467	11,404
Centre	158,425	22,716	25,381	2,253	14,101	9,003	82	11,840	1,886	22,171	23,865
Chester	545,823	118,765	97,653	11,779	43,728	31,754	281	44,315	5,386	29,965	123,001
Clearfield	77,904	14,230	17,248	1,411	6,463	5,007	40	7,302	641	8,635	4,790
Cumberland	268,579	54,201	51,228	5,375	21,965	15,806	139	22,271	2,729	20,090	48,661
Dauphin	288,800	63,727	52,675	6,320	23,062	16,612	149	23,294	2,934	34,778	109,332
Delaware	575,182	124,857	101,157	12,383	46,225	32,849	296	45,574	6,040	53,893	209,015
Elk	30,477	5,792	7,328	574	2,491	2,015	16	3,010	241	3,009	915
Erie	267,689	55,114	52,963	5,466	21,727	15,942	138	22,719	2,626	38,149	45,706
Fayette	125,755	24,031	28,717	2,383	10,311	8,063	65	11,883	1,093	21,097	11,218
Franklin	156,902	33,759	32,188	3,348	12,537	9,491	81	13,706	1,472	13,339	21,421
Greene	34,663	6,635	7,265	658	2,855	2,153	18	3,103	301	4,164	2,368
Indiana	82,957	14,695	17,168	1,457	6,988	5,053	43	7,211	869	10,759	5,656
Lackawanna	215,615	43,803	44,401	4,344	17,519	13,093	111	18,844	2,087	27,211	40,433
Lancaster	556,629	127,271	109,854	12,622	43,859	32,281	287	46,311	5,427	48,929	110,248
Lawrence	84,849	16,762	19,873	1,662	6,894	5,425	44	8,064	748	10,521	7,610
Lebanon	144,011	32,232	29,594	3,197	11,385	8,578	74	12,424	1,346	15,850	29,813
Lehigh	376,317	83,883	66,127	8,319	30,007	21,381	194	29,717	3,855	41,650	152,596
Luzerne	326,369	65,845	65,876	6,530	26,582	19,786	168	28,320	3,083	47,930	81,027
Lycoming	113,104	23,172	23,541	2,298	9,168	6,858	58	9,901	1,088	12,939	11,986
Mercer	109,220	20,420	25,441	2,025	9,001	7,027	56	10,395	975	12,979	11,123
Monroe	167,198	31,883	32,801	3,162	13,798	10,358	86	14,686	1,566	20,227	63,810
Montgomery	864,683	181,249	164,248	17,976	69,880	51,227	445	72,372	8,578	55,916	229,089
Northampton	318,526	60,421	64,684	5,992	26,363	19,450	164	27,765	3,144	32,077	85,358
Philadelphia	1,567,258	330,406	230,631	32,768	128,283	83,453	804	109,967	19,309	325,746	1,035,930
Somerset	72,710	13,130	17,446	1,302	6,026	4,788	38	7,124	571	9,781	3,991
Susquehanna	38,074	7,048	9,651	699	3,125	2,555	20	3,863	298	4,219	1,725
Tioga	41,106	7,895	9,682	783	3,364	2,639	21	3,921	368	4,822	1,731
Washington	210,383	40,748	46,466	4,041	17,229	13,270	108	19,401	1,917	23,615	18,226
Westmoreland	352,057	63,155	86,063	6,263	29,194	23,325	181	34,864	3,015	33,697	24,926
Wyoming	26,014	4,943	5,995	490	2,136	1,668	13	2,464	232	2,952	1,438
York	461,058	99,537	87,446	9,872	36,935	27,261	238	38,589	4,407	41,364	88,791

PUERTO RICO

American Lung Association in Puerto Rico

	HIGH OZONE DAYS 2020–2022				
County	Orange	Red	Purple	Wgt. Avg.	Grade
Adjuntas	DNC	DNC	DNC	DNC	DNC
Bayamón	0	0	0	0.0	A
Caguas	DNC	DNC	DNC	DNC	DNC
Cataño	INC	INC	INC	INC	INC
Fajardo	DNC	DNC	DNC	DNC	DNC
Guayama	DNC	DNC	DNC	DNC	DNC
Guaynabo	DNC	DNC	DNC	DNC	DNC
Juncos	INC	INC	INC	INC	INC
Mayagüez	0	0	0	0.0	A
Ponce	DNC	DNC	DNC	DNC	DNC

	HIGH PARTICLE POLLUTION DAYS 2020–2022							
	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Adjuntas	INC	INC	INC	INC	INC	INC	INC	INC
Bayamón	0	0	0	0	0.0	A	INC	INC
Caguas	0	0	0	0	0.0	A	INC	INC
Cataño	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Fajardo	0	0	0	0	0.0	A	INC	INC
Guayama	0	0	0	0	0.0	A	INC	INC
Guaynabo	0	0	0	0	0.0	A	INC	INC
Juncos	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Mayagüez	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Ponce	0	0	0	0	0.0	A	INC	INC

PUERTO RICO

American Lung Association in Puerto Rico

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Adjuntas	17,905	3,054	4,103	317	1,809	784	2	1,534	101	11,367	17,901
Bayamón	181,577	27,939	44,453	2,900	18,590	8,013	25	15,699	1,068	62,427	183,238
Caguas	125,136	19,807	28,380	2,056	12,774	5,468	17	10,638	777	46,606	125,008
Cataño	22,364	3,710	5,463	385	2,257	974	3	1,911	134	10,499	22,867
Fajardo	31,375	5,220	7,480	542	3,179	1,379	4	2,706	186	13,569	31,856
Guayama	35,262	5,841	7,376	606	3,544	1,481	5	2,841	207	16,295	36,262
Guaynabo	89,057	12,277	22,984	1,274	9,338	4,087	12	8,072	499	22,384	88,573
Juncos	36,672	6,474	6,703	672	3,641	1,498	5	2,836	251	14,047	36,849
Mayagüez	70,609	10,861	18,841	1,127	7,184	3,106	10	6,123	405	38,344	72,270
Ponce	132,138	22,600	33,553	2,345	13,280	5,801	18	11,463	728	67,203	135,975

RHODE ISLAND

American Lung Association in Rhode Island

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Kent	3	0	0	1.0	C
Providence	6	0	0	2.0	C
Washington	6	2	0	3.0	D

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Kent	1	0	0	0	0.3	B	4.5	Pass
Providence	1	0	0	0	0.3	B	7.9	Pass
Washington	0	0	0	0	0.0	A	4.3	Pass

RHODE ISLAND

American Lung Association in Rhode Island

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Kent	171,275	30,746	35,220	3,104	18,749	10,079	86	12,861	1,484	12,518	25,743
Providence	657,288	131,373	108,254	13,264	70,640	34,134	331	42,275	6,452	88,238	273,525
Washington	130,330	19,638	30,567	1,983	14,682	8,111	66	10,466	1,144	7,993	12,730

SOUTH CAROLINA

American Lung Association in South Carolina

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Aiken	0	0	0	0.0	A
Anderson	0	0	0	0.0	A
Berkeley	0	0	0	0.0	A
Charleston	0	0	0	0.0	A
Chesterfield	0	0	0	0.0	A
Darlington	0	0	0	0.0	A
Edgefield	0	0	0	0.0	A
Florence	DNC	DNC	DNC	DNC	DNC
Greenville	1	0	0	0.3	B
Horry	0	0	0	0.0	A
Lexington	DNC	DNC	DNC	DNC	DNC
Richland	1	0	0	0.3	B
Spartanburg	1	0	0	0.3	B
York	1	0	0	0.3	B

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Aiken	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Anderson	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Berkeley	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Charleston	1	0	0	0	0.3	B	7.2	Pass
Chesterfield	0	0	0	0	0.0	A	6.7	Pass
Darlington	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Edgefield	0	0	0	0	0.0	A	7.6	Pass
Florence	0	0	0	0	0.0	A	7.5	Pass
Greenville	1	0	0	0	0.3	B	8.2	Pass
Horry	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lexington	2	0	0	0	0.7	B	7.9	Pass
Richland	0	0	0	0	0.0	A	7.0	Pass
Spartanburg	0	0	0	0	0.0	A	8.1	Pass
York	0	0	0	0	0.0	A	6.9	Pass

SOUTH CAROLINA

American Lung Association in South Carolina

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Aiken	174,150	36,757	36,704	2,478	12,437	10,987	92	13,925	1,785	29,144	60,702
Anderson	209,581	46,801	38,939	3,155	14,719	12,666	111	15,774	2,231	31,607	49,338
Berkeley	245,117	57,108	37,302	3,850	16,887	13,562	130	16,411	2,759	21,513	92,328
Charleston	419,279	79,891	76,429	5,386	30,509	25,141	222	31,017	4,940	47,690	139,637
Chesterfield	43,683	9,568	8,555	645	3,094	2,730	23	3,424	432	8,439	17,964
Darlington	62,398	13,824	12,387	932	4,397	3,853	33	4,846	666	12,842	28,843
Edgefield	26,932	4,484	5,439	302	2,029	1,745	15	2,178	239	4,048	11,401
Florence	136,721	32,048	24,771	2,161	9,449	8,039	72	9,995	1,524	27,332	68,376
Greenville	547,950	123,968	92,748	8,357	38,186	31,651	290	38,877	6,159	54,179	179,972
Horry	383,101	64,164	101,863	4,326	29,068	27,549	203	35,912	3,554	46,928	85,504
Lexington	304,797	68,858	52,680	4,642	21,309	17,997	162	22,178	3,310	33,295	84,421
Richland	421,566	89,565	59,667	6,038	29,640	22,594	223	26,906	5,474	63,715	251,403
Spartanburg	345,831	79,660	56,915	5,370	23,973	19,795	183	24,231	3,861	49,261	114,867
York	294,248	68,657	45,639	4,629	20,351	16,808	156	20,411	3,337	23,957	94,275

SOUTH DAKOTA

American Lung Association in South Dakota

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Brookings	3	0	0	1.0	C
Brown	DNC	DNC	DNC	DNC	DNC
Clay	INC	INC	INC	INC	INC
Codington	2	0	0	0.7	B
Custer	2	0	0	0.7	B
Hughes	DNC	DNC	DNC	DNC	DNC
Jackson	0	0	0	0.0	A
Meade	7	0	0	2.3	D
Minnehaha	1	0	0	0.3	B
Pennington	DNC	DNC	DNC	DNC	DNC
Union	INC	INC	INC	INC	INC

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Brookings	3	1	1	0	2.2	D	4.9	Pass
Brown	0	3	0	0	1.5	C	5.5	Pass
Clay	INC	INC	INC	INC	INC	INC	INC	INC
Codington	2	2	1	0	2.3	D	7.6	Pass
Custer	3	1	0	0	1.5	C	4.1	Pass
Hughes	1	0	1	0	1.0	C	3.3	Pass
Jackson	0	1	1	0	1.2	C	4.5	Pass
Meade	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Minnehaha	3	2	0	0	2.0	C	INC	INC
Pennington	3	1	0	0	1.5	C	7.3	Pass
Union	INC	INC	INC	INC	INC	INC	INC	INC

SOUTH DAKOTA

American Lung Association in South Dakota

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Brookings	35,484	7,373	4,876	514	2,369	1,604	17	1,977	557	4,298	4,254
Brown	37,972	8,866	6,972	618	2,444	2,048	19	2,605	486	4,064	5,672
Clay	15,280	2,590	1,929	181	1,072	680	7	822	288	2,550	2,093
Codington	28,721	6,553	5,609	457	1,859	1,613	14	2,065	336	3,090	2,709
Custer	9,006	1,197	3,007	83	637	684	4	949	79	831	1,053
Hughes	17,692	4,332	3,289	302	1,123	967	9	1,229	222	1,619	3,427
Jackson	2,821	1,041	354	73	151	120	1	146	31	799	1,785
Meade	30,698	6,378	5,268	445	2,050	1,632	15	2,042	392	2,299	4,234
Minnehaha	203,971	51,281	28,366	3,576	13,003	10,058	100	12,091	2,691	18,266	41,006
Pennington	114,461	24,993	22,971	1,743	7,496	6,533	56	8,391	1,329	15,784	23,852
Union	17,063	4,013	3,303	280	1,096	961	8	1,225	200	1,020	1,745

TENNESSEE

American Lung Association in Tennessee

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Anderson	0	0	0	0.0	A
Blount	2	0	0	0.7	B
Claiborne	0	0	0	0.0	A
Davidson	3	0	0	1.0	C
DeKalb	0	0	0	0.0	A
Dyer	DNC	DNC	DNC	DNC	DNC
Hamilton	2	0	0	0.7	B
Jefferson	0	0	0	0.0	A
Knox	0	0	0	0.0	A
Lawrence	DNC	DNC	DNC	DNC	DNC
Loudon	0	0	0	0.0	A
McMinn	DNC	DNC	DNC	DNC	DNC
Madison	DNC	DNC	DNC	DNC	DNC
Maury	DNC	DNC	DNC	DNC	DNC
Montgomery	DNC	DNC	DNC	DNC	DNC
Putnam	DNC	DNC	DNC	DNC	DNC
Roane	DNC	DNC	DNC	DNC	DNC
Sevier	0	0	0	0.0	A
Shelby	12	2	0	5.0	F
Sullivan	0	0	0	0.0	A
Sumner	2	0	0	0.7	B
Williamson	2	0	0	0.7	B
Wilson	1	0	0	0.3	B

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Anderson	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Blount	1	0	0	0	0.3	B	7.0	Pass
Claiborne	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Davidson	5	0	0	0	1.7	C	9.1	Fail
DeKalb	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Dyer	3	0	0	0	1.0	C	7.2	Pass
Hamilton	0	1	0	0	0.5	B	7.7	Pass
Jefferson	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Knox	5	0	0	0	1.7	C	9.4	Fail
Lawrence	0	0	0	0	0.0	A	5.8	Pass
Loudon	0	0	0	0	0.0	A	6.6	Pass
McMinn	0	0	0	0	0.0	A	7.4	Pass
Madison	3	0	0	0	1.0	C	7.4	Pass
Maury	1	0	0	0	0.3	B	6.6	Pass
Montgomery	3	0	0	0	1.0	C	7.0	Pass
Putnam	1	0	0	0	0.3	B	6.6	Pass
Roane	0	1	0	0	0.5	B	7.1	Pass
Sevier	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Shelby	0	1	0	0	0.5	B	8.5	Pass
Sullivan	0	0	0	0	0.0	A	6.3	Pass
Sumner	2	0	0	0	0.7	B	7.4	Pass
Williamson	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Wilson	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC

TENNESSEE

American Lung Association in Tennessee

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Anderson	78,913	16,536	15,982	1,610	7,397	7,588	48	7,879	820	10,167	9,261
Blount	139,958	27,488	29,806	2,677	13,366	13,958	86	14,585	1,438	13,365	14,186
Claiborne	32,431	6,162	6,637	600	3,117	3,191	20	3,302	348	6,259	1,788
Davidson	708,144	140,751	95,239	13,708	66,376	57,896	432	55,052	10,050	95,816	308,978
DeKalb	21,003	4,537	3,916	442	1,962	2,012	13	2,048	218	3,245	2,790
Dyer	36,410	8,635	6,558	841	3,293	3,302	22	3,366	399	6,131	7,947
Hamilton	374,682	77,527	70,079	7,551	35,082	34,568	229	35,311	4,355	43,066	109,788
Jefferson	56,727	10,745	11,849	1,046	5,479	5,737	35	5,946	583	6,138	4,803
Knox	494,574	101,703	81,914	9,905	46,264	43,713	302	43,484	6,116	55,899	92,706
Lawrence	45,415	11,372	7,956	1,108	4,042	4,069	28	4,135	469	6,112	3,204
Loudon	58,181	10,837	16,211	1,055	5,621	6,322	36	7,020	496	5,881	8,060
McMinn	54,719	11,525	11,139	1,122	5,130	5,304	33	5,510	572	8,003	6,433
Madison	99,245	21,910	18,140	2,134	9,141	9,038	60	9,214	1,136	14,152	45,065
Maury	108,159	24,425	18,850	2,379	9,904	9,718	66	9,813	1,230	11,092	23,716
Montgomery	235,201	62,497	23,538	6,087	20,180	16,801	144	15,303	3,104	25,722	93,231
Putnam	82,382	16,743	13,719	1,631	7,711	7,213	50	7,187	977	15,140	10,671
Roane	55,082	10,266	13,004	1,000	5,337	5,765	34	6,142	531	7,203	4,506
Sevier	98,789	19,883	20,779	1,936	9,390	9,841	60	10,260	997	11,335	11,741
Shelby	916,371	228,438	138,108	22,248	81,186	76,759	557	75,647	11,121	150,180	603,045
Sullivan	160,820	30,307	36,007	2,952	15,498	16,314	98	17,216	1,646	24,274	12,307
Sumner	203,858	46,298	34,528	4,509	18,706	18,529	125	18,563	2,282	15,086	37,723
Williamson	260,815	66,560	39,009	6,482	23,218	23,189	160	22,737	2,848	10,671	43,896
Wilson	158,555	36,461	25,560	3,551	14,502	14,240	97	14,122	1,782	11,221	28,625

TEXAS

American Lung Association in Texas

	HIGH OZONE DAYS 2020–2022					HIGH PARTICLE POLLUTION DAYS 2020–2022							
						24-Hour						Annual	
County	Orange	Red	Purple	Wgt. Avg.	Grade	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Atascosa	DNC	DNC	DNC	DNC	DNC	2	1	0	0	1.2	C	INC	INC
Bell	6	0	0	2.0	C	1	0	0	0	0.3	B	7.4	Pass
Bexar	30	0	0	10.0	F	1	1	0	0	0.8	B	8.6	Pass
Bowie	DNC	DNC	DNC	DNC	DNC	2	0	0	0	0.7	B	10.0	Fail
Brazoria	21	2	0	8.0	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Brazos	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	INC	INC
Brewster	0	0	0	0.0	A	1	0	0	0	0.3	B	5.5	Pass
Cameron	0	0	0	0.0	A	9	3	0	0	4.5	F	9.1	Fail
Collin	16	2	0	6.3	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Culberson	15	0	0	5.0	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Dallas	25	1	0	8.8	F	1	0	0	0	0.3	B	9.4	Fail
Denton	43	4	0	16.3	F	2	0	0	0	0.7	B	7.5	Pass
Ector	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	7.4	Pass
Ellis	1	0	0	0.3	B	0	0	0	0	0.0	A	INC	INC
El Paso	49	1	0	16.8	F	1	0	0	0	0.3	B	9.2	Fail
Galveston	10	1	0	3.8	F	2	0	0	0	0.7	B	7.9	Pass
Gregg	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Harris	50	13	0	23.2	F	4	1	0	0	1.8	C	11.4	Fail
Harrison	2	0	0	0.7	B	2	2	0	0	1.7	C	INC	INC
Hidalgo	1	0	0	0.3	B	7	2	0	0	3.3	F	10.1	Fail
Hood	12	0	0	4.0	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Hunt	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Jefferson	8	0	0	2.7	D	2	0	0	0	0.7	B	8.3	Pass
Johnson	21	1	0	7.5	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Kaufman	3	0	0	1.0	C	INC	INC	INC	INC	INC	INC	INC	INC
Kleberg	DNC	DNC	DNC	DNC	DNC	9	2	0	0	4.0	F	10.3	Fail
Lubbock	DNC	DNC	DNC	DNC	DNC	2	0	0	0	0.7	B	5.8	Pass
McLennan	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Maverick	DNC	DNC	DNC	DNC	DNC	1	1	0	0	0.8	B	7.9	Pass
Montgomery	14	1	0	5.2	F	INC	INC	INC	INC	INC	INC	INC	INC
Navarro	1	0	0	0.3	B	INC	INC	INC	INC	INC	INC	INC	INC
Nueces	2	0	0	0.7	B	1	2	0	0	1.3	C	8.7	Pass
Orange	2	0	0	0.7	B	2	0	0	0	0.7	B	8.2	Pass
Parker	16	0	0	5.3	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Polk	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Potter	DNC	DNC	DNC	DNC	DNC	1	0	0	0	0.3	B	5.9	Pass
Randall	7	0	0	2.3	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Rockwall	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Smith	6	0	0	2.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Tarrant	42	6	1	17.7	F	3	0	0	0	1.0	C	9.1	Fail
Travis	7	0	0	2.3	D	1	1	0	0	0.8	B	9.3	Fail
Victoria	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Webb	0	0	0	0.0	A	3	1	0	0	1.5	C	10.1	Fail

TEXAS

American Lung Association in Texas

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Atascosa	50,864	13,626	7,553	866	2,924	2,179	21	3,531	600	8,191	35,322
Bell	388,386	106,162	45,913	6,745	21,853	14,965	158	23,247	5,106	53,701	221,468
Bexar	2,059,530	506,417	262,624	32,177	120,827	84,496	837	132,726	27,314	314,925	1,527,050
Bowie	92,035	21,698	16,068	1,379	5,542	4,280	37	7,045	1,032	16,274	35,243
Brazoria	388,181	98,908	49,627	6,285	22,651	16,171	158	25,677	4,862	38,062	224,784
Brazos	242,014	48,124	24,944	3,058	14,743	9,141	99	13,407	3,913	49,079	109,417
Brewster	9,343	1,668	2,357	106	611	522	4	895	97	1,239	5,022
Cameron	425,208	121,422	59,843	7,715	23,750	17,382	173	27,918	5,105	95,070	388,876
Collin	1,158,696	283,701	135,234	18,026	68,574	48,112	471	75,765	15,278	55,552	564,447
Culberson	2,155	492	461	31	132	109	1	185	21	432	1,628
Dallas	2,600,840	648,322	306,984	41,194	151,967	104,912	1,056	163,751	34,891	364,132	1,904,763
Denton	977,281	226,335	113,352	14,381	58,730	40,794	397	63,906	13,357	75,587	446,372
Ector	160,869	48,910	15,687	3,108	8,658	5,745	66	8,777	2,001	25,752	117,048
Ellis	212,182	55,450	27,737	3,523	12,290	8,864	86	14,144	2,658	18,830	98,686
El Paso	868,763	224,877	113,529	14,289	50,114	35,388	353	55,856	10,986	179,428	771,729
Galveston	357,117	83,660	56,246	5,316	21,558	16,273	145	26,527	4,320	47,446	160,634
Gregg	125,443	32,076	20,096	2,038	7,327	5,524	51	8,996	1,506	19,744	55,360
Harris	4,780,913	1,230,488	560,415	78,185	276,530	191,428	1,942	299,226	63,334	775,281	3,484,481
Harrison	69,955	16,591	12,520	1,054	4,211	3,287	28	5,436	820	10,570	26,742
Hidalgo	888,367	273,656	102,005	17,388	47,757	33,144	361	51,858	11,194	240,721	837,830
Hood	66,373	13,468	17,009	856	4,233	3,708	27	6,419	646	6,447	11,956
Hunt	108,282	25,978	17,148	1,651	6,475	4,876	44	7,938	1,316	13,548	35,271
Jefferson	250,830	61,097	39,139	3,882	14,899	11,142	102	18,079	2,816	44,645	157,101
Johnson	195,506	49,899	27,582	3,171	11,430	8,382	80	13,482	2,333	19,258	66,815
Kaufman	172,366	48,999	18,520	3,113	9,600	6,568	70	10,206	2,272	14,630	85,882
Kleberg	30,362	7,178	4,117	456	1,783	1,220	12	1,893	424	7,761	24,416
Lubbock	317,561	74,292	41,810	4,720	18,788	12,915	129	20,096	4,484	52,929	155,150
McLennan	266,836	63,415	40,466	4,029	15,843	11,505	108	18,403	3,532	40,862	121,134
Maverick	57,843	17,768	6,753	1,129	3,116	2,175	24	3,413	702	12,535	56,200
Montgomery	678,490	173,811	94,361	11,044	39,676	29,130	276	46,886	8,292	57,427	266,621
Navarro	54,636	14,345	9,127	911	3,178	2,455	22	4,043	599	12,232	25,996
Nueces	351,674	83,688	55,489	5,317	20,999	15,632	143	25,309	4,360	59,461	254,494
Orange	84,934	21,406	13,662	1,360	5,006	3,813	34	6,239	989	11,655	18,605
Parker	165,834	40,655	26,484	2,583	9,899	7,577	67	12,430	1,893	12,854	32,513
Polk	53,255	10,736	10,008	682	3,390	2,712	22	4,536	487	9,204	15,357
Potter	115,645	30,697	16,350	1,950	6,642	4,836	47	7,750	1,331	21,130	66,452
Randall	146,140	34,582	22,997	2,197	8,725	6,459	59	10,428	1,850	12,193	48,388
Rockwall	123,208	32,328	15,560	2,054	7,144	5,151	50	8,222	1,515	5,809	44,458
Smith	241,922	58,090	42,031	3,691	14,452	11,104	98	18,235	2,967	27,902	101,191
Tarrant	2,154,595	543,108	265,948	34,509	125,852	88,529	874	139,528	28,476	225,849	1,233,287
Travis	1,326,436	264,281	145,551	16,792	82,174	54,382	541	82,974	19,435	131,687	690,910
Victoria	91,065	22,701	15,522	1,442	5,368	4,105	37	6,727	1,087	13,969	52,493
Webb	267,780	83,029	27,350	5,276	14,345	9,726	109	15,038	3,358	55,124	258,156

UTAH

American Lung Association in Utah

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Box Elder	7	0	0	2.3	D
Cache	3	0	0	1.0	C
Carbon	4	0	0	1.3	C
Davis	39	1	0	13.5	F
Duchesne	7	0	0	2.3	D
Garfield	2	0	0	0.7	B
Iron	2	0	0	0.7	B
Salt Lake	60	8	0	24.0	F
San Juan	4	0	0	1.3	C
Tooele	13	1	0	4.8	F
Uintah	10	0	0	3.3	F
Utah	21	0	0	7.0	F
Washington	4	1	0	1.8	C
Weber	20	0	0	6.7	F

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Box Elder	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Cache	19	3	0	0	7.8	F	8.1	Pass
Carbon	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Davis	14	1	0	0	5.2	F	7.4	Pass
Duchesne	10	1	0	0	3.8	F	6.9	Pass
Garfield	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Iron	2	1	0	0	1.2	C	5.8	Pass
Salt Lake	22	5	0	0	9.8	F	9.9	Fail
San Juan	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Tooele	13	3	0	0	5.8	F	6.9	Pass
Uintah	4	1	0	0	1.8	C	6.3	Pass
Utah	14	0	0	0	4.7	F	7.5	Pass
Washington	1	1	0	0	0.8	B	5.6	Pass
Weber	9	0	0	0	3.0	D	7.0	Pass

UTAH

American Lung Association in Utah

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Box Elder	61,498	18,730	7,922	1,377	4,717	1,948	12	2,956	742	4,923	8,504
Cache	140,173	40,550	14,210	2,981	10,943	4,066	28	5,858	2,073	16,598	23,915
Carbon	20,571	5,170	3,904	380	1,693	771	4	1,245	243	2,748	3,648
Davis	369,948	110,709	41,111	8,138	28,623	11,330	74	16,691	4,817	23,448	67,451
Duchesne	20,161	6,443	2,652	474	1,513	634	4	971	235	2,760	3,159
Garfield	5,281	1,166	1,270	86	451	221	1	371	55	479	776
Iron	62,429	16,840	8,624	1,238	5,008	2,035	12	3,098	852	7,723	9,911
Salt Lake	1,186,257	296,883	143,157	21,822	98,153	38,912	237	57,477	16,336	90,158	369,156
San Juan	14,359	4,041	2,180	297	1,139	495	3	771	166	3,208	7,835
Tooele	79,934	24,706	7,489	1,816	6,111	2,347	16	3,364	1,055	5,151	16,496
Uintah	37,141	11,473	4,589	843	2,831	1,156	7	1,742	460	4,402	6,944
Utah	702,434	219,921	56,215	16,165	53,103	18,953	140	26,344	10,225	55,585	138,916
Washington	197,680	47,470	44,209	3,489	16,433	7,792	39	12,996	2,235	18,880	34,016
Weber	269,561	71,104	33,475	5,226	21,901	8,805	54	13,121	3,564	22,590	67,665

VERMONT

American Lung Association in Vermont

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Bennington	0	0	0	0.0	A
Chittenden	0	0	0	0.0	A
Rutland	0	0	0	0.0	A

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Bennington	1	0	0	0	0.3	B	5.7	Pass
Chittenden	1	0	0	0	0.3	B	6.9	Pass
Rutland	1	0	0	0	0.3	B	7.5	Pass

VERMONT

American Lung Association in Vermont

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Bennington	37,392	6,910	9,229	500	3,921	2,350	18	2,998	267	3,986	2,674
Chittenden	169,301	28,707	28,732	2,078	18,478	8,656	80	10,782	1,687	15,769	21,643
Rutland	60,366	10,355	14,905	749	6,440	3,819	28	4,868	430	7,261	3,106

VIRGINIA

American Lung Association in Virginia

	HIGH OZONE DAYS 2020–2022					HIGH PARTICLE POLLUTION DAYS 2020–2022							
						24-Hour						Annual	
County	Orange	Red	Purple	Wgt. Avg.	Grade	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Albemarle	0	0	0	0.0	A	0	0	0	0	0.0	A	7.3	Pass
Arlington	3	0	0	1.0	C	0	0	0	0	0.0	A	7.1	Pass
Caroline	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Charles City	0	0	0	0.0	A	0	0	0	0	0.0	A	6.1	Pass
Chesterfield	1	0	0	0.3	B	0	0	0	0	0.0	A	6.1	Pass
Fairfax	3	0	0	1.0	C	1	0	0	0	0.3	B	8.3	Pass
Fauquier	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Frederick	0	0	0	0.0	A	0	0	0	0	0.0	A	7.7	Pass
Giles	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Hanover	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Henrico	1	0	0	0.3	B	1	0	0	0	0.3	B	7.6	Pass
Loudoun	3	0	0	1.0	C	1	0	0	0	0.3	B	6.6	Pass
Madison	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Prince Edward	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Prince William	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Roanoke	0	0	0	0.0	A	1	0	0	0	0.3	B	7.5	Pass
Rockbridge	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Rockingham	0	0	0	0.0	A	0	0	0	0	0.0	A	6.7	Pass
Stafford	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Wythe	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Bristol City	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	6.5	Pass
Hampton City	0	0	0	0.0	A	0	0	0	0	0.0	A	6.5	Pass
Lynchburg City	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	5.9	Pass
Norfolk City	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	6.5	Pass
Richmond City	DNC	DNC	DNC	DNC	DNC	1	0	0	0	0.3	B	7.7	Pass
Salem City	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	6.5	Pass
Suffolk City	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Virginia Beach City	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	6.7	Pass

VIRGINIA

American Lung Association in Virginia

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Albemarle	114,534	21,866	23,862	1,719	9,163	6,780	54	9,022	1,279	9,024	27,478
Arlington	234,000	42,262	28,026	3,322	19,146	11,765	111	13,886	3,227	15,822	93,896
Caroline	31,957	7,155	5,524	562	2,470	1,782	15	2,332	322	3,302	12,020
Charles City	6,605	947	1,791	74	560	470	3	664	53	776	3,652
Chesterfield	378,408	88,045	61,824	6,921	28,931	20,482	178	26,520	4,173	25,672	158,413
Fairfax	1,138,331	257,820	172,070	20,268	87,927	60,827	538	77,631	12,552	66,177	586,029
Fauquier	74,664	17,110	13,235	1,345	5,737	4,231	35	5,602	717	4,759	17,543
Frederick	95,051	21,327	18,114	1,677	7,325	5,462	45	7,284	923	6,794	19,598
Giles	16,453	3,215	3,677	253	1,313	1,033	8	1,418	150	1,954	952
Hanover	112,938	24,023	21,908	1,889	8,844	6,652	53	8,910	1,101	5,754	19,938
Henrico	333,962	72,694	57,141	5,715	25,998	18,473	157	23,980	3,739	30,491	164,653
Loudoun	432,085	113,893	46,737	8,953	31,989	20,796	204	25,451	4,942	16,440	206,825
Madison	14,000	2,758	3,307	217	1,113	894	7	1,239	126	1,469	2,237
Prince Edward	21,927	3,452	3,716	271	1,829	1,204	10	1,495	267	3,554	8,529
Prince William	486,943	127,844	55,027	10,050	36,021	23,362	230	28,573	5,497	33,481	296,340
Roanoke	96,914	18,763	21,672	1,475	7,736	6,009	46	8,194	963	7,062	15,905
Rockbridge	22,593	3,849	6,249	303	1,846	1,551	11	2,197	192	2,677	1,984
Rockingham	85,397	18,529	17,518	1,457	6,624	5,009	40	6,737	855	8,740	11,885
Stafford	163,380	42,310	18,934	3,326	12,142	7,923	77	9,731	1,788	8,703	74,529
Wythe	28,111	5,416	6,307	426	2,251	1,774	13	2,435	259	4,392	1,874
Bristol City	16,975	3,403	3,883	268	1,341	1,050	8	1,438	163	3,452	2,180
Hampton City	138,037	29,434	23,108	2,314	10,784	7,448	65	9,517	1,608	19,408	88,713
Lynchburg City	79,287	15,118	11,523	1,188	6,357	3,982	37	4,781	1,143	13,550	30,145
Norfolk City	232,995	46,759	30,525	3,676	18,531	11,567	110	13,828	2,865	39,741	134,059
Richmond City	229,395	38,919	33,454	3,060	18,937	12,087	108	14,681	3,233	47,338	130,140
Salem City	25,523	4,869	5,004	383	2,048	1,498	12	1,978	286	2,548	4,386
Suffolk City	98,537	23,084	15,101	1,815	7,529	5,234	46	6,701	1,064	11,279	51,879
Virginia Beach City	455,618	98,907	73,023	7,775	35,500	24,468	215	31,199	5,118	44,340	182,843

WASHINGTON

American Lung Association in Washington

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Benton	3	0	0	1.0	C
Clallam	0	0	0	0.0	A
Clark	0	0	0	0.0	A
Columbia	INC	INC	INC	INC	INC
King	9	2	0	4.0	F
Kitsap	DNC	DNC	DNC	DNC	DNC
Kittitas	DNC	DNC	DNC	DNC	DNC
Okanogan	DNC	DNC	DNC	DNC	DNC
Pierce	1	0	0	0.3	B
Skagit	0	0	0	0.0	A
Snohomish	DNC	DNC	DNC	DNC	DNC
Spokane	3	0	0	1.0	C
Stevens	DNC	DNC	DNC	DNC	DNC
Thurston	INC	INC	INC	INC	INC
Whatcom	0	0	0	0.0	A
Yakima	DNC	DNC	DNC	DNC	DNC

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Benton	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Clallam	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Clark	4	2	2	5	7.8	F	9.1	Fail
Columbia	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
King	11	7	3	0	9.2	F	8.5	Pass
Kitsap	7	3	3	0	5.8	F	6.4	Pass
Kittitas	9	4	3	1	7.8	F	7.5	Pass
Okanogan	16	11	7	2	17.2	F	13.4	Fail
Pierce	12	6	3	0	9.0	F	8.1	Pass
Skagit	2	1	0	0	1.2	C	INC	INC
Snohomish	19	12	4	1	15.8	F	8.9	Pass
Spokane	4	12	1	3	10.5	F	INC	INC
Stevens	13	13	1	3	14.0	F	11.6	Fail
Thurston	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Whatcom	6	8	1	0	6.7	F	INC	INC
Yakima	16	18	1	4	18.3	F	11.8	Fail

WASHINGTON

American Lung Association in Washington

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Benton	212,791	54,976	34,231	4,019	17,308	8,285	89	11,960	2,130	23,033	70,542
Clallam	77,805	12,580	25,159	920	7,152	4,317	32	6,987	597	9,001	14,550
Clark	516,779	115,159	87,493	8,418	44,101	21,410	215	30,995	5,378	44,218	129,066
Columbia	4,026	695	1,172	51	366	214	2	340	33	471	690
King	2,266,789	435,698	322,915	31,849	200,767	89,738	946	124,387	26,594	190,175	1,020,593
Kitsap	277,673	53,752	55,091	3,929	24,551	12,248	116	18,121	2,657	25,406	70,563
Kittitas	45,189	7,723	8,282	565	4,104	1,950	19	2,820	512	4,918	7,735
Okanogan	43,127	9,688	10,002	708	3,670	1,995	18	3,072	364	7,212	15,750
Pierce	927,380	210,895	138,494	15,416	78,589	36,276	387	51,218	9,993	82,369	342,870
Skagit	131,179	27,297	29,554	1,995	11,397	6,048	55	9,218	1,212	14,795	36,153
Snohomish	840,079	183,512	125,944	13,414	72,095	33,596	350	47,468	8,987	70,524	299,990
Spokane	549,690	117,125	96,054	8,562	47,439	22,875	229	33,174	5,784	65,239	95,766
Stevens	48,229	10,043	12,257	734	4,197	2,377	20	3,714	386	6,201	6,732
Thurston	298,758	61,635	56,583	4,505	26,006	12,866	124	18,928	3,145	25,609	84,077
Whatcom	230,677	42,239	43,622	3,088	20,636	9,950	96	14,519	2,620	25,890	53,056
Yakima	257,001	74,062	37,021	5,414	20,057	9,348	107	13,306	2,600	41,877	154,133

WEST VIRGINIA

American Lung Association in West Virginia

	HIGH OZONE DAYS 2020–2022					HIGH PARTICLE POLLUTION DAYS 2020–2022							
						24-Hour						Annual	
County	Orange	Red	Purple	Wgt. Avg.	Grade	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Berkeley	0	0	0	0.0	A	0	0	0	0	0.0	A	8.2	Pass
Brooke	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	8.5	Pass
Cabell	0	0	0	0.0	A	0	0	0	0	0.0	A	7.1	Pass
Gilmer	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Greenbrier	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Hancock	1	0	0	0.3	B	0	0	0	0	0.0	A	7.8	Pass
Harrison	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	6.9	Pass
Kanawha	0	0	0	0.0	A	0	0	0	0	0.0	A	7.5	Pass
Marion	DNC	DNC	DNC	DNC	DNC	0	0	0	0	0.0	A	INC	INC
Marshall	DNC	DNC	DNC	DNC	DNC	1	0	0	0	0.3	B	8.4	Pass
Monongalia	0	0	0	0.0	A	0	0	0	0	0.0	A	7.0	Pass
Ohio	1	0	0	0.3	B	0	0	0	0	0.0	A	7.5	Pass
Tucker	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Wood	1	0	0	0.3	B	0	0	0	0	0.0	A	7.5	Pass

WEST VIRGINIA

American Lung Association in West Virginia

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Berkeley	129,490	29,553	19,865	2,782	13,040	13,106	88	12,893	1,329	14,175	24,172
Brooke	21,733	3,745	5,489	353	2,319	2,625	15	2,839	187	2,656	1,066
Cabell	92,730	18,068	18,467	1,701	9,571	9,892	63	10,106	1,005	17,142	9,721
Gilmer	7,325	1,111	1,324	105	801	798	5	789	54	1,314	1,587
Greenbrier	32,435	6,217	8,040	585	3,383	3,843	22	4,162	281	5,783	2,472
Hancock	28,172	5,136	6,873	484	2,984	3,378	19	3,641	244	3,322	1,985
Harrison	64,915	13,665	13,441	1,287	6,644	7,190	44	7,513	602	9,584	4,220
Kanawha	175,515	34,376	38,827	3,236	18,229	19,904	119	20,994	1,667	30,549	22,151
Marion	55,952	10,967	11,372	1,033	5,792	6,093	38	6,281	561	8,380	4,189
Marshall	29,752	5,563	7,173	524	3,130	3,530	20	3,798	244	5,071	1,232
Monongalia	106,869	17,014	14,576	1,602	11,493	10,374	73	9,506	1,381	18,418	13,142
Ohio	41,447	8,069	9,523	760	4,288	4,694	28	4,982	393	5,831	3,542
Tucker	6,568	883	1,833	83	736	859	4	943	54	1,040	198
Wood	83,340	17,275	18,061	1,626	8,565	9,407	56	9,929	759	15,321	4,649

WISCONSIN

American Lung Association in Wisconsin

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Ashland	1	0	0	0.3	B
Brown	3	0	0	1.0	C
Columbia	4	0	0	1.3	C
Dane	3	0	0	1.0	C
Dodge	2	0	0	0.7	B
Door	12	0	0	4.0	F
Eau Claire	0	0	0	0.0	A
Fond du Lac	3	0	0	1.0	C
Forest	0	0	0	0.0	A
Grant	DNC	DNC	DNC	DNC	DNC
Jackson	DNC	DNC	DNC	DNC	DNC
Jefferson	5	0	0	1.7	C
Kenosha	24	2	0	9.0	F
Kewaunee	5	1	0	2.2	D
La Crosse	0	0	0	0.0	A
Manitowoc	10	2	0	4.3	F
Marathon	0	0	0	0.0	A
Milwaukee	15	1	0	5.5	F
Monroe	DNC	DNC	DNC	DNC	DNC
Outagamie	3	0	0	1.0	C
Ozaukee	15	2	0	6.0	F
Racine	17	2	0	6.7	F
Rock	3	0	0	1.0	C
Sauk	1	0	0	0.3	B
Sheboygan	15	3	0	6.5	F
Taylor	0	0	0	0.0	A
Vilas	0	0	0	0.0	A
Walworth	8	0	0	2.7	D
Waukesha	8	0	0	2.7	D

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Ashland	2	1	0	0	1.2	C	5.6	Pass
Brown	3	0	0	0	1.0	C	7.8	Pass
Columbia	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Dane	0	0	0	0	0.0	A	8.8	Pass
Dodge	0	0	0	0	0.0	A	7.9	Pass
Door	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Eau Claire	4	1	0	0	1.8	C	8.1	Pass
Fond du Lac	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Forest	3	1	0	0	1.5	C	5.9	Pass
Grant	0	0	0	0	0.0	A	8.7	Pass
Jackson	INC	INC	INC	INC	INC	INC	INC	INC
Jefferson	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Kenosha	1	0	0	0	0.3	B	7.9	Pass
Kewaunee	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
La Crosse	1	0	0	0	0.3	B	7.9	Pass
Manitowoc	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Marathon	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Milwaukee	2	0	0	0	0.7	B	9.4	Fail
Monroe	INC	INC	INC	INC	INC	INC	INC	INC
Outagamie	3	0	0	0	1.0	C	8.0	Pass
Ozaukee	0	0	0	0	0.0	A	INC	INC
Racine	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Rock	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Sauk	0	0	0	0	0.0	A	7.7	Pass
Sheboygan	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Taylor	2	2	0	0	1.7	C	6.7	Pass
Vilas	3	0	0	0	1.0	C	5.3	Pass
Walworth	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Waukesha	2	0	0	0	0.7	B	9.2	Fail

WISCONSIN

American Lung Association in Wisconsin

		AT-RISK GROUPS									
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Ashland	16,039	3,340	3,496	208	1,381	871	8	1,271	145	2,180	2,950
Brown	270,036	61,272	44,663	3,820	23,065	13,167	140	18,266	2,832	25,824	56,882
Columbia	58,193	11,952	11,472	745	5,066	3,129	30	4,453	531	4,341	5,001
Dane	568,203	110,187	87,071	6,869	50,875	26,606	294	36,295	6,947	57,011	125,205
Dodge	88,282	16,941	16,901	1,056	7,839	4,765	46	6,718	782	7,403	9,847
Door	30,526	4,719	9,922	294	2,726	1,993	16	3,123	225	2,350	2,158
Eau Claire	106,837	20,971	18,488	1,307	9,474	5,109	55	7,161	1,271	11,756	11,731
Fond du Lac	103,836	21,571	20,911	1,345	8,996	5,501	54	7,894	1,011	9,397	12,480
Forest	9,381	1,807	2,332	113	817	556	5	825	75	1,284	1,885
Grant	51,276	10,742	9,549	670	4,451	2,541	27	3,614	499	6,152	2,876
Jackson	20,836	4,440	4,294	277	1,790	1,115	11	1,608	169	2,485	2,937
Jefferson	85,784	16,648	16,286	1,038	7,598	4,554	44	6,425	872	6,817	9,779
Kenosha	167,817	36,087	26,790	2,250	14,600	8,400	87	11,498	1,778	16,116	43,925
Kewaunee	20,623	4,196	4,609	262	1,784	1,150	11	1,680	180	1,539	1,324
La Crosse	120,294	23,108	21,797	1,441	10,701	5,936	62	8,372	1,414	13,327	13,771
Manitowoc	81,172	16,353	18,416	1,019	7,035	4,563	42	6,682	703	8,492	9,111
Marathon	137,958	30,625	26,669	1,909	11,756	7,177	71	10,239	1,300	14,999	17,349
Milwaukee	918,661	216,233	136,828	13,480	77,956	41,990	474	57,395	10,723	157,016	467,935
Monroe	46,109	11,430	8,499	713	3,802	2,316	24	3,293	416	6,209	4,817
Outagamie	192,127	43,697	31,935	2,724	16,397	9,466	99	13,129	1,945	13,737	26,805
Ozaukee	93,009	19,245	20,216	1,200	8,026	5,093	48	7,413	852	5,245	9,249
Racine	195,846	44,229	35,720	2,757	16,663	10,018	101	14,129	1,895	18,463	59,351
Rock	164,060	36,417	29,460	2,270	14,045	8,359	85	11,746	1,640	16,659	30,802
Sauk	65,777	14,439	13,297	900	5,607	3,462	34	4,985	614	6,112	6,790
Sheboygan	117,841	25,004	23,349	1,559	10,160	6,226	61	8,905	1,094	10,828	21,121
Taylor	19,975	4,552	4,258	284	1,678	1,092	10	1,586	165	2,249	945
Vilas	23,763	3,843	7,538	240	2,109	1,573	12	2,441	151	2,456	3,394
Walworth	105,380	20,220	21,075	1,260	9,328	5,618	55	8,024	1,054	10,286	15,794
Waukesha	410,434	84,982	84,430	5,298	35,551	22,267	212	31,996	3,841	21,345	54,715

WYOMING

American Lung Association in Wyoming

HIGH OZONE DAYS 2020–2022

County	Orange	Red	Purple	Wgt. Avg.	Grade
Albany	12	1	0	4.5	F
Big Horn	3	0	0	1.0	C
Campbell	11	0	0	3.7	F
Converse	7	0	0	2.3	D
Fremont	8	0	0	2.7	D
Johnson	7	0	0	2.3	D
Laramie	10	0	0	3.3	F
Lincoln	INC	INC	INC	INC	INC
Natrona	6	0	0	2.0	C
Park	DNC	DNC	DNC	DNC	DNC
Sheridan	DNC	DNC	DNC	DNC	DNC
Sublette	10	0	0	3.3	F
Sweetwater	6	0	0	2.0	C
Teton	3	0	0	1.0	C
Uinta	INC	INC	INC	INC	INC
Weston	1	0	0	0.3	B

HIGH PARTICLE POLLUTION DAYS 2020–2022

	24-Hour						Annual	
	Orange	Red	Purple	Maroon	Wgt. Avg.	Grade	Design Value	Pass/ Fail
Albany	4	1	0	0	1.8	C	INC	INC
Big Horn	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Campbell	6	0	0	0	2.0	C	INC	INC
Converse	INC	INC	INC	INC	INC	INC	INC	INC
Fremont	6	1	0	0	2.5	D	2.0	Pass
Johnson	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Laramie	4	2	0	0	2.3	D	4.9	Pass
Lincoln	INC	INC	INC	INC	INC	INC	INC	INC
Natrona	5	0	0	0	1.7	C	3.8	Pass
Park	2	0	0	0	0.7	B	4.9	Pass
Sheridan	0	0	0	0	0.0	A	INC	INC
Sublette	4	1	0	0	1.8	C	3.6	Pass
Sweetwater	1	0	0	0	0.3	B	INC	INC
Teton	17	5	0	0	8.2	F	4.5	Pass
Uinta	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Weston	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC

WYOMING

American Lung Association in Wyoming

				AT-RISK GROUPS							
				Lung Diseases							
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	CV Disease	Pregnancies	Poverty	People of Color
Albany	38,031	5,781	5,055	388	3,590	1,674	14	1,958	552	5,927	6,761
Big Horn	11,855	2,834	2,597	190	934	688	4	845	106	1,658	1,663
Campbell	47,058	12,397	6,203	833	3,747	2,208	17	2,563	502	3,998	6,386
Converse	13,786	3,318	2,560	223	1,099	761	5	914	134	1,653	1,673
Fremont	39,472	9,654	7,913	648	3,119	2,182	14	2,659	374	6,508	12,105
Johnson	8,730	1,794	2,362	121	702	573	3	718	73	741	900
Laramie	100,723	22,434	17,547	1,507	8,339	5,298	36	6,336	1,058	10,114	22,688
Lincoln	20,660	5,198	4,073	349	1,611	1,160	7	1,405	187	1,677	1,806
Natrona	79,601	18,644	13,729	1,252	6,486	4,150	29	4,963	850	8,480	11,446
Park	30,518	6,211	7,666	417	2,492	1,917	11	2,386	279	3,211	3,027
Sheridan	32,096	6,623	7,405	445	2,635	1,948	12	2,398	304	2,981	2,903
Sublette	8,763	1,865	2,093	125	708	544	3	671	78	658	978
Sweetwater	41,345	10,228	6,174	687	3,342	2,039	15	2,398	449	5,039	8,749
Teton	23,287	3,989	4,096	268	2,061	1,296	8	1,537	265	1,212	4,691
Uinta	20,712	5,559	3,479	373	1,607	1,051	7	1,257	209	2,207	2,776
Weston	6,860	1,304	1,570	88	576	424	2	519	54	725	784