AMERICAN LUNG ASSOCIATION®

State of the Air: 2006

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The American Lung Association assumes sole responsibility for the content of the *American Lung Association State of the Air 2006*.

American Lung Association
National Headquarters
61 Broadway, 6th Floor
New York City, NY 10006-2701
Phone (212) 315-8700

Washington Office
1150 18th St., NW, Suite 900
Washington, DC 20036-3816
Phone: (202) 785-3355

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Executive Summary

Air pollution levels improved in many parts of the nation during the years 2002-2004. Yet millions of Americans still face dangerous levels of air pollution. The *American Lung Association State of the Air 2006* presents information on air pollution on a state-by-state, county-by-county basis, using the most up-to-date quality-assured data available for nationwide comparisons.

American Lung Association State of the Air 2006 provides a county-level report card on the two most pervasive air pollutants: ozone (smog) and particle pollution (soot). In addition, this year's report shows that both pollutants remain a persistent threat across large parts of the United States. However, there are clear signs that controls placed on coal-fired power plants between 1998 and 2004 have already improved air quality in much of the eastern United States.

Looking at the nation as a whole, this report card finds:

- **Over half of the U.S. population lives in counties that have unhealthful levels of either ozone or particle pollution.** Over 150 million Americans live in 369 counties where they are exposed to unhealthful levels of air pollution in the form of either ozone or short-term or year-round levels of particles.
- **Nearly half the U.S. population—47 percent—lives in areas with unhealthful levels of ozone.** Counties that were graded F for ozone levels have a combined population of over 140.5 million. Almost half of all Americans live in counties where the air quality places them at risk for decreased lung function, respiratory infection, lung inflammation and aggravation of respiratory illness.
- **More than one in five people in the United States lives in an area with unhealthful short-term levels of particle pollution.** Over 64.3 million Americans live in areas where they are exposed to unhealthful short-term levels of particle pollution. Short-term, or acute, exposure to particle pollution has been shown to increase heart attacks, strokes and emergency-room visits for asthma and cardiovascular disease, and most importantly, increase the risk of death.
- **Nearly one in five people in the United States lives in an area with unhealthful year-round levels of particle pollution.** Some 53.1 million Americans suffer from chronic exposure to particle pollution. Even when levels are fairly low, exposure to particles over time can increase risk of hospitalization for asthma, damage to the lungs and, significantly, increase the risk of premature death.
- **About 42.5 million Americans—nearly 15 percent of the population—live in 34 counties with unhealthful levels of all three: ozone and short-term and year-round particle pollution.**

With the risks from airborne pollution so great, the American Lung Association seeks to inform people who may be in danger. Many groups are at greater risk because of their age or the presence of asthma or other chronic lung or cardiovascular disease or because they have diabetes. Those groups include:

- **People with Asthma**—Over 3 million children and over 8.5 million adults with asthma live in parts of the United States with very high levels of ozone. Over 3.9 million adults and 1.4 million children with asthma live in areas with high levels of short-term particle pollution. Over 3.2 million adults and nearly 1.2 million children with asthma live in counties with unhealthful levels of year-round particle pollution.
- **Older and Younger**—Over 16 million adults age 65 and over and approximately 36 million children age 18 and under live in counties with unhealthful ozone levels. Over 7.3 million seniors and over 16.7 million children live in counties with unhealthful short-term levels of particle pollution. Over 6 million seniors and nearly 13.9 million children live in counties with unhealthful levels of year-round particle pollution.
- **Chronic Bronchitis and Emphysema**—Over 4.3 million people with chronic bronchitis and nearly1.7 million with emphysema live in counties with unhealthful ozone levels. Over 1.9 million people with chronic bronchitis and 763,000 with emphysema live in counties with unhealthful levels of short-term particle pollution. Over 1.6 million people with chronic bronchitis and over 627,000 with emphysema live in counties with unhealthful year-round levels of particle pollution.
- **Cardiovascular Disease**—Over 15.3 million people with cardiovascular diseases live in areas with unhealthful levels of short-term particle pollution; 12.7 million live in counties with unhealthful levels of year-round particle pollution. Cardiovascular diseases include heart disease, heart attacks and strokes.
- **Diabetes**—Over 3.2 million people with diabetes live in areas with unhealthful levels of short-term particle pollution; 2.7 million live in counties with unhealthful levels of year-round particle pollution. Research indicates that diabetics face increased risk due to particle pollution impact on their cardiovascular systems.

In addition to providing specific grades for each county with ozone and particle pollution monitors, the *American Lung Association State of the Air 2006* also discusses key steps needed to improve the air we all breathe. Those steps include:

- **Set much more protective limits on particle pollution in the air.** Thousands of studies have documented that the current limits on particle pollution do not protect the health of the public "with an adequate margin of safety" as required by the Clean Air Act. The Environmental Protection Agency (EPA) will decide in September, 2006 how much particle pollution will be permitted. That limit will become the goal all states must meet and will drive decisions on how to clean up particle pollution in each community. The American Lung Association recommends that EPA set those limits for

daily, or 24-hour levels, of fine particles at 25 $\mu g/m^3$ and for year-round levels at 12 $\mu g/m^3$, counted at the 99^{th} percentile.

- **Protect the Clean Air Act.** The American Lung Association is greatly concerned about threats to one of the most effective public health laws ever passed, the Clean Air Act. Threats come from legislative proposals to roll back key provisions of the law and continued delays in taking action that the science tells us is needed to clean up air pollution. The American Lung Association has taken legal action to protect this valuable clean air tool, and encourages everyone to tell his or her members of Congress to protect the Clean Air Act.
- **Clean up dirty power plants.** Old, coal-fired power plants are among the biggest industrial contributors to unhealthful air, especially particle pollution in the eastern United States. The toll of death, disease and environmental destruction caused by coal-fired power plant pollution continues to mount. The EPA issued rules in 2005 that give states the tools to clean up these plants. However, the EPA has issued other rules that give the electric utility industry (and its power plants) huge loopholes in complying with the Clean Air Act. Those loopholes need to be removed.
- **Clean up marine and locomotive diesel.** In 2004, the EPA made a strong public commitment to propose protective emission standards for locomotive and marine diesel engines by the middle of 2005 and to take final action by the middle of 2006. As of April 28, 2006, EPA has failed to publish its proposal. In 2000, EPA finalized regulations to clean up highway diesel trucks, buses and diesel fuel. This regulation was followed, in 2004, by new rules to clean up heavy equipment and construction and agricultural diesel engines and their fuel. This rulemaking also cleaned up the diesel fuel for locomotive and marine diesel engines. However, EPA postponed new emission standards for locomotives and marine sources, leaving a large diesel loophole. EPA needs to follow through on its commitment to clean up marine and locomotive diesel.

Individual citizens can do a great deal to help reduce air pollution outdoors as well. Simple, but effective ways include:

- **Drive less.** Combine trips, walk, bike, carpool or vanpool, and use buses, subways or other alternatives to driving. Vehicle emissions are a major source of air pollution. Support community plans that provide ways to get around that don't require a car, such as more sidewalks, bike trails and transit systems.
- **Don't burn wood or trash.** Burning firewood and trash are among the largest sources of particles in many parts of the country. If you must use a fireplace or stove for heat, convert your woodstoves to natural gas, which has far fewer polluting emissions. Compost and recycle as much as possible and dispose of other waste properly; don't burn it. Support efforts in your community to ban outdoor burning of construction and yard wastes.
- **Get involved.** Participate in your community's review of its air pollution

plans and support state and local efforts to clean up air pollution.

- **Use less electricity.** Turn out the lights and use energy-efficient appliances.

Send a message to decision makers. Send an email or fax to urge your member of Congress to protect the Clean Air Act. Log on at www.lungusa.org to see how easy that can be.

Introduction

Outdoor air pollution takes a tremendous toll on our nation's health. Millions of people, of all ages and backgrounds, live in parts of the United States where polluted air makes breathing difficult, even dangerous. The American Lung Association is committed to reducing this threat. As a tool for gauging the progress (or lack of progress) in combating air pollution and its health impact, the American Lung Association annually assesses air quality in the United States through its annual *American Lung Association State of the Air* reports.

This latest analysis, the *American Lung Association State of the Air 2006* examines the two most pervasive outdoor air pollutants: ozone and $PM_{2.5}$ or particle pollution.[1] While these are not the only troublesome outdoor air pollutants, they are the two most dangerous because of their toxicity and their prevalence.

This report grades only those counties with air quality monitors. Importantly, however, air pollution does not respect political boundaries and may be a public health hazard regardless of whether a community has a monitor in place. Air pollution can be blown by the wind or formed mid-air through complex chemical reactions that disperse the pollution far beyond its source. The monitors, however, provide an overall picture of the air quality in a larger region, a picture that helps shape efforts to curb the pollution. In addition to giving grades to individual counties that have air quality monitors, this report also describes the broader situation in each region of the country in the chapter entitled "National and Regional Analysis."

Particle Pollution

Of the two airborne health hazards, particle pollution is the more deadly and remains a widespread problem, especially in large parts of the eastern United States and California. This report looks at particle pollution in several ways. Tables form the core of the report, with each state's short-term and year-round particle grades, by county, if the county has a particle monitor. These data come from a network of monitors in more than 700 counties established in 1998 and 1999 following the U.S. Environmental Protection Agency's (EPA) adoption of a health standard to address fine particle pollution in 1997.

Particle pollution is evaluated by two measures: 1) short-term exposure due to occasional spikes in particle pollution from relatively infrequent events, although these spikes may last hours to days; and 2) year-round or chronic exposure from particles found routinely in the environment.

Analyses for this 2006 report shows a general decline in particle pollution from the Lung Association's 2005 report, thanks in large part to implementation of programs to reduce pollution from coal-fired power plants.[2]

Ozone Pollution

Ozone continues to be the most pervasive air pollutant and remains a present danger despite decreases in this pollutant nationwide since 1980. During the 1990s, ozone concentrations remained remarkably and uncomfortably unchanged.[3] EPA's own records show this stagnation. However, EPA's data are now showing a trend toward lower ozone readings, a trend also reflected by the analysis in this Lung Association report. The decline also comes in the face of a particularly hot summer in 2002 when many cities reported "Code Red" days, with air pollution levels reaching unhealthful levels for all populations. Cooler, wetter summers in 2003 and 2004 also contributed to this decline.[4] But EPA itself looked at the changes and, even correcting for weather, documented a real improvement in ozone levels.[5]

According to the EPA, these declines are largely the result of controls put in place to clean up coal-fired power plants in the Eastern United States.[6] If so, the real decline will likely persist in the future, as Georgia and Missouri power plants install this first round of control measures and new controls finally impact public health. Coming down the road are additional steps that will help reduce air pollution further, including cleaner diesel fuels, trucks and buses in 2006 and cleaner sport utility vehicles and heavy equipment vehicles in 2007.

Millions Remain At Risk, Despite Improvements in Air Quality

The reduction in emissions from coal-fired power plants provided clear evidence that air is cleaner in much of the nation, but wet weather and cool summers also influenced some of the significant drop in unhealthy days.[7] Although the air is cleaner, tens of millions of people still live in counties where monitors show unhealthful levels of air pollution in the form of either ozone or short-term or year-round levels of particle pollution. While not every person is exposed to dangerous levels of air pollution each day, pollution occurs frequently enough in these counties to cause serious health problems.

- 150.7 million Americans—over 51 percent of the U.S. population—live in 369 counties with unhealthful levels of air pollution in the form of either ozone or short-term levels or year-round levels of particle pollution. This group includes over one million fewer people exposed than in the 2005 American Lung Association analysis, but still represents over half the people in the nation.
- 42.5 million Americans—nearly 14.5 percent of the U.S. population—live in 34 counties with unhealthful levels of all three air quality measures: ozone and particle pollution in both short-term and year-round levels. Although this group includes almost eight million fewer people than in the 2005 analysis, it still means one in seven Americans lives in a community where the air pollution is repeatedly a threat to public health.

At Risk: Ozone

Even with the downturn in ozone levels, this American Lung Association report finds that nearly half of the people living in the United States—48 percent—live in 337

counties with unhealthful levels of ozone pollution. Included are more than 140.5 million Americans, a tally that still understates the problem considerably since it only includes counties where ozone monitors exist and have accumulated three years of data. Of those 140.5 million people, many are especially at risk, including:

- 8.5 million adults with asthma,
- 3.1 million children with asthma,
- 4.4 million people with chronic bronchitis,
- 1.7 million people with emphysema,
- 36 million children age 18 and under, and
- 16 million adults age 65 and over.

At Risk: Particle Pollution

All too many people who live in areas with unhealthful ozone levels also face a second, even more dangerous threat: particle pollution. This American Lung Association report estimates that millions live in areas with unhealthful short-term or year-round levels of particle pollution, including:

- 64.3 million people—more than 20 percent of the U.S. population—live in 71 counties with dangerous short-term levels, or spikes of particle pollution; and
- 53.1 million people—nearly one in five Americans—live in 68 counties with unhealthful levels of particle pollution day in and day out.

Those who are particularly vulnerable to ozone are also at greater risk from particles. Unfortunately, particle pollution also threatens two other large groups: people with cardiovascular diseases and people with diabetes. In total, millions of especially vulnerable people live in areas of the country where particle pollution levels place them at risk, including:

- 16.8 million children 18 and under live in areas with unhealthful short-term levels of particle pollution; 13.9 million live in areas with unhealthful year-round levels.
- 7.4 million adults 65 and older live in areas with unhealthful short-term levels of particle pollution; 6 million live in areas with unhealthful year-round levels.
- 3.9 million adults with asthma live in areas with unhealthful short-term levels of particle pollution; 3.2 million live in areas with unhealthful year-round levels.
- 1.4 million children with asthma live in areas with unhealthful short-term levels of particle pollution; 1.2 million live in areas with unhealthful year-round levels.

- 2 million people with chronic bronchitis live in areas with unhealthful short-term levels of particle pollution; 1.6 million live in areas with unhealthful year-round levels.
- 763,000 adults with emphysema live in areas with unhealthful short-term levels of particle pollution; 627,900 live in areas with unhealthful year-round levels.
- 15.4 million people with cardiovascular diseases live in areas with unhealthful short-term levels of particle pollution; 12.7 million live in areas with unhealthful year-round levels.
- 3.2 million people with diabetes live in areas with unhealthful short-term levels of particle pollution; 2.7 million live in areas with unhealthful year-round levels.

Basis for the *American Lung Association State of the Air* Report

Because millions of people are exposed and millions more are at risk, the American Lung Association produces the *American Lung Association State of the Air* each year to alert individuals, families, business, industry and government leaders to the dangers inherent in the air we breathe.

In 2000, the American Lung Association initiated its State of the Air annual assessment to provide citizens with easy-to-understand summaries of the quality of the air in their communities. These annual assessments are based on concrete data and sound science. Counties are assigned grades ranging from A through F based on how often their air quality crosses into the "unhealthful" categories of EPA's Air Quality Index for ground-level ozone (smog) pollution and short-term particle pollution.

The Air Quality Index is based on the national air quality standards. The air quality standard for ozone used as the basis for this report (0.08 parts per million averaged over an eight-hour period) was adopted by the EPA in 1997 based on the most recent health effects information. For particle pollution, the Air Quality Index is based on, but is more conservative than, the $PM_{2.5}$ 24-hour national standard. Also adopted in 1997, the national standard for $PM_{2.5}$ 24-hour levels is 65 $\mu g/m^3$. However, EPA set the Air Quality Index for particles to acknowledge that levels below 65 $\mu g/m^3$ are harmful to public health.[8]

The Lung Association has long urged the EPA to employ more protective standards to judge air quality. Thousands of studies completed in the years since EPA set its standards show clearly that air pollution harms millions of Americans at levels that were once considered safe. For that reason, the American Lung Association report uses a more conservative formula to grade than does EPA for ozone and short-term particle pollution.

To evaluate the year-round levels of particle pollution for any monitored county, the *American Lung Association State of the Air 2006* uses the EPA's own criteria for determining whether a county met or failed to meet the national air quality standards. A more detailed discussion of the methodology is contained in Appendix A.

The grades in this report are assigned based on the quality of the air in an area, and do not assess efforts to implement controls that improve air quality. The grades should not be interpreted as an evaluation of the work of any state or local air pollution control program or any community's air quality advocacy efforts.

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[1] The size of the particle pollution under discussion here is $PM_{2.5}$, also called fine particles or fine particulates. These particles are classified and monitored by size, being 2.5 microns and smaller in diameter. A more comprehensive explanation of these particles, their origins and health effects can be found in the chapter "Health Effects of Ozone and Particle Pollution."

[2] U.S. Environmental Protection Agency. Evaluating Ozone Control Programs in the Eastern United States: Focus on the NO_X Budget Trading Program, 2004. August, 2005. http://www.epa.gov/airtrends/aqtrnd04/ozone.html.

[3] U.S. EPA. National Air Quality and Emissions Trends Report, 2003 Special Studies Edition. Washington, DC.: 2003. http://www.epa.gov/oar/aqtrnd03/.

[4] U.S. EPA. The Ozone Report: Measuring Progress through 2003. April 2004. http://www.epa.gov/airtrends/aqtrnd04/ozone.html.

[5] U.S. EPA. August 2005.

[6] U.S. EPA. August, 2005.

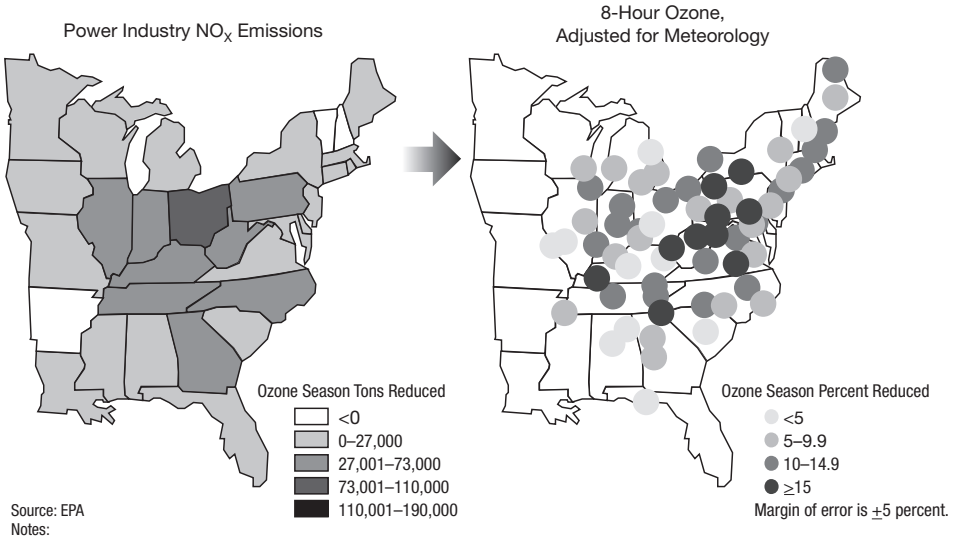
[7] U.S. EPA. April, 2004.

[8] See Appendix A for a complete discussion of the methodology for assessing these levels.

National Analysis

Air quality in the United States improved significantly during 2002-2004, with a substantial drop in unhealthful days and fewer counties receiving failing grades than ever reported in the *American Lung Association State of the Air* updates. This progress occurred even though more counties were monitored for ozone and particle pollution. The most dramatic drop came in the number of days with unhealthful levels of ozone pollution. Days of unhealthful levels of particle pollution also dropped from last year's report, but fewer particle pollution monitors were fully operating during this period.

The key factor for the remarkable decline in ozone was the final installation of controls on nitrogen oxide emissions from eastern electric utilities in 11 states in 2004.[1] Beginning in 1998, the U.S. Environmental Protection Agency required most eastern states to substantially reduce emissions of nitrogen oxide (NO_X), a key ingredient in ozone formation.[2] During 2002-2004, 19 states implemented the required cuts in NO_X emissions, largely by requiring reductions from coal-fired power plants. EPA estimates that with these controls in place, ozone levels dropped five percent per year between 2002 and 2004. In the five years before these controls were required (between 1997 and 2002), ozone levels declined only an average of one percent each year in all but two eastern states.[3]



Reductions in nitrogen oxide emissions led to significant reductions in ozone levels, as shown here between 2002 and 2004, when most of the required controls were placed on power plants. Source: U.S. Environmental Protection Agency. Evaluating Ozone Control Programs in the Eastern United States: Focus on the NOX Budget Trading Program, 2004. August 2005.

Weather certainly played a part in ozone levels in several regions. Although 2002 featured a hot, dry summer that escalated ozone levels in the eastern states, the summers of 2003 and 2004 saw much cooler temperatures in those same states. Other reductions came from controls on cars, trucks and industrial processes.[4]

As a reason for the decline in particle pollution, EPA cites the Acid Rain Program for reductions in the eastern states and programs targeting direct emissions of particles in the west. Congress created the Acid Rain Program in the 1990 amendments to the Clean Air Act. The program is aimed at reducing harm over 20 years to the environment and to visibility caused by acids formed in the air from sulfur dioxide and nitrogen oxide emitted by electric utilities.[5] EPA credits lower emissions to programs in the western states that paved unpaved roads, switched to natural gas from fuels like coal and wood, and improved agricultural soil management practices as tools in controlling directly emitted particles.[6]

Despite these improvements, much clearly remained to be done in the fight against air pollution. EPA took initial, critical steps in 2004 by formally telling the states which counties had unhealthful levels of ozone and particle pollution in response to legal action brought by the American Lung Association. In April 2004, EPA officially designated parts or all of 474 counties as "nonattainment" for the national ozone standards, which means they either have ozone levels higher than the standards allow or they contribute to pollution in a nearby county. In December, EPA followed up by designating all or part of 224 counties as nonattainment for the national particle pollution ($PM_{2.5}$) standards.

The following analyses describe changes in ozone and particle pollution levels monitored in 2002, 2003 and 2004, compared to 2001-2003, the period covered by the last report, *American Lung Association State of the Air 2005*. This analysis covers the most current quality assured data available nationwide at press time. While some states have data from 2005 that have been quality assured, all states are not required to complete the data for 2005 until July 1, 2006.

Regional Analyses

Ozone and particle pollution can flow easily beyond state borders, across the nation and around the world, often ending up far from its sources. This movement can occur within a county, a state, a region or across national boundaries. To look at pollution solely on a county-by-county or state-by-state basis overlooks the fluid nature of these pollutants. The discussion that follows uses the regional divisions set up by the U.S. Environmental Protection Agency to examine changes that have occurred since publication of *American Lung Association State of the Air 2005* report. Analyses cover state and metropolitan areas, as defined by the U.S. Census Bureau. However, many of the large urban centers with elevated air pollution levels overlap two or more EPA regions, such as the New York-Newark-Bridgeport, NY-NE-CT-PA metropolitan area, which covers parts of four states and three EPA regions. To make it easier to see a complete picture of the region, those multi-state areas are reviewed in each region they overlap.

Region 1
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

Region 1: Many counties in the New England region saw improvements in ozone and particle levels. Much of this region's ozone pollution is transported from other regions, combined with local sources.

Connecticut
Bridgeport is part of the New York-Newark-Bridgeport, NY-NJ-CT-PA metropolitan area, which ranked among the 25 most polluted metro areas in the nation (9th most ozone-polluted, 15th for short-term particle pollution and 16th for year-round particle levels). Fairfield and New Haven counties ranked as the 15th and 24th most ozone-polluted counties in the nation. New Haven County also ranked 19th on the list of counties most polluted by short-term particle levels. Two counties improved their particle pollution grades, most importantly New Haven County, which improved to a passing grade in year-round particle levels.

Maine
Ozone remained the biggest problem in Maine, though serious problem areas are limited. In addition, several counties significantly improved their ozone grades, including Cumberland, Knox and Penobscot counties which moved from an F to a C, D and C, respectively. The most polluted county for ozone remained York County, which received an F. Maine has much less of a problem with particle pollution, and all counties passed the annual grade for particle pollution. The worst grade for short-term particles was Aroostook County, with a C grade. For particle pollution, Hancock County ranked as the 18th cleanest county in the nation for year-round levels of particle pollution. Several counties improved their grades for short-term levels, including Cumberland and Kennebec, where grades improved to an A from a B, landing them on the list of the cleanest counties for short-term particle pollution. Grades for Aroostook and Oxford counties both dropped slightly.

Massachusetts
Ozone remained the biggest air pollution problem in Massachusetts, though two counties also have unhealthy levels of short-term particle pollution levels. Norfolk County had the highest number of unhealthy ozone days and received an F. Two counties, Berkshire and Worcester, improved their ozone levels to a D from an F. For particle pollution, Hampden County remained the county with the worst short-term levels, while Suffolk had the worst year-round levels.

New Hampshire
Ozone remained the biggest air pollution problem in New Hampshire. Fortunately, only two counties, Hillsborough and Rockingham, received Fs for having the most days with unhealthful levels. Coos County saw its ozone grade drop to a D from a C in this year's report. However, Coos County's particle pollution grade for short-term levels improved to an A from a B, placing it on the list for the cleanest counties in the nation for that pollutant, along with Grafton County.

Rhode Island
Ozone pollution remained a consistent problem in Rhode Island, with all monitored counties again receiving F grades, though all had fewer unhealthful days than in last year's report. All counties received passing grades for the annual levels of particle pollution, with no counties receiving an F for short-term levels.

Vermont
Vermont had only a few days of unhealthful air during 2002-2004. Bennington County remained the county with the most days with unhealthful ozone and short-term levels of particle pollution.

Region 2
New Jersey, New York, Puerto Rico

Region 2: Like New England, New Jersey and New York suffer from pollution blown in from outside the state, as well as that pollution generated by local sources. Dominating this region are several metropolitan areas with some of the most serious air pollution problems in the nation. The largest U.S. city, comprising the New York-Newark-Bridgeport, NY-NJ-CT-PA metropolitan area, remained ranked 9th among the 25 most ozone-polluted U.S. cities. Compared to the 2005 report, the New York area's ranking worsened for short-term particle pollution, moving to 15th most polluted from 25th, though it improved on its year-round exposure to particles, going from 12th to 16th most polluted.

New Jersey
New Jersey continued to have serious problems with both ozone and particle pollution. Camden and Ocean counties tied for 16th most ozone-polluted counties in the nation. Union County ranked 19th most polluted by short-term particle levels. New Jersey cities are also parts of three metropolitan areas with high levels of air pollution. Newark is the part of the New York metropolitan area discussed above. Camden is part of the Philadelphia-Camden-Vineland, PA-NJ-DE-MD metropolitan area that remained ranked as the 10th most ozone-polluted city. Easton is part of the Allentown-Bethlehem-Easton, PA-NJ metro area. Both of these last two metropolitan areas improved enough to just drop off list of the 25 cities most polluted by short-term particles pollution levels and tie for 27th place.

Several New Jersey counties improved their grades. Most notably, Hudson County improved its grade for ozone to a D from an F. Only Mercer County dropped a grade, to a D from a C.

New York
In addition to the New York metropolitan area, Buffalo-Niagara-Cattaraugus continues to be ranked on the list of most ozone-polluted cities. However, its ozone levels improved enough to move it to the 25th place on that list from the 20th.

New York County ranks as 20th most polluted county in the nation by year-round particle pollution. It did improve its short-term grade to a D from an F. Several other New York counties improved their grades, particularly Steuben County, which improved its short-term particle grade to a C from an F, and Oneida County, which improved its ozone grade to a D from an F.

Puerto Rico
As an island located far from transported pollution, Puerto Rico has historically had good air quality.

Region 3
Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia

Region 3: The Mid-Atlantic region continues to carry the highest air pollution burden in the nation. Historic problems with air pollutants blown in from outside the region add to locally developed pollution, creating a complex clean up problem. Nine major Mid-Atlantic cities or parts of cities ranked among the 25 most polluted by particles year-round. Six cities or parts of cities are on the list of 25 cities most polluted by ozone and five are on the most-polluted list for short-term particles. The most burdened major cities include: Pittsburgh-New Castle, PA (ranked 3rd for year-round exposure and 4th for short-term exposure to particles and 17th for ozone levels); Washington-Baltimore-Northern Virginia, DC-MD-VA-WV (ranked 12th worst for both ozone and short-term particle exposure, and 21st for year-round exposure to particles); Philadelphia-Camden-Vineland, PA-NJ-DE-MD (which remained ranked as the 10th most ozone-polluted city); and the Pennsylvania suburbs of the New York-Newark-Bridgeport, NY-NJ-CT-PA metro area (ranked 9th worst for ozone, 15th for short-term particle exposure and 16th for year-round particles).

Nine smaller cities also ranked among the most polluted, especially in Pennsylvania and West Virginia. Counties in those states also ranked among the most polluted, along with several counties in Maryland.

This region had more cities ranked among the most polluted by year-round levels of particle pollution than any other region. The Mid-Atlantic was second only to the California-dominated Region 9 in the number of metropolitan areas ranked as among the most polluted by short-term particle pollution and tied for second with the upper Midwest (Region 5) for ozone.

Delaware
While most counties had fewer days of unhealthy air pollution, two counties in Delaware improved enough to raise their grades for short-term particle pollution. However, the parts of Delaware that are in the Philadelphia-Camden-Vineland, PA-NJ-DE-MD metropolitan area remain ranked as 10th most ozone-polluted city in the nation.

District of Columbia
As part of the Washington-Baltimore-Northern Virginia metropolitan area, the District continues to have serious air pollution problems. However, the number of days with high levels of pollution dropped compared to the 2005 report.

Maryland
In addition to the ranked Washington-Baltimore metro area, Maryland includes parts of two other of the nation's most polluted metropolitan areas. Hagerstown-Martinsburg, MD-WV, tied for 22nd most polluted by year-round levels of particles and Maryland's suburban counties are included in the Philadelphia metro area, which ranked as the 10th most polluted by ozone. In addition, Maryland has

counties that ranked among the most polluted in the nation. Anne Arundel and Harford counties ranked 20th and 21st most ozone-polluted counties in the nation, while Baltimore City ranked 16th most polluted by short-term levels of particle pollution. Good news: Baltimore County improved its year-round grade for particle pollution to passing.

Pennsylvania

Pennsylvania landed all or parts of eight metropolitan areas on the lists of the most polluted cities in the nation. In addition to the rankings for Pittsburgh, Philadelphia and the Pennsylvania suburbs of the New York City metropolitan area, three smaller cities remained on the list of most polluted by year-round levels of particle pollution: York-Hanover-Gettysburg tied for 13th; Lancaster tied for 16th; and, newcomer to the worst list, Reading tied at 22nd. Along with the three major metropolitan areas, Harrisburg-Carlisle-Lebanon also ranked on the list of cities most polluted by short-term particle levels, at 24th, and Youngstown-Warren-East Liverpool, OH-PA metropolitan area tied for 20th most ozone-polluted city.

Pittsburgh's ranking on the list of most polluted by year-round particle levels has gotten worse, despite lower particle levels, because of greater clean up in other cities. Both Philadelphia-Camden-Vineland, PA-NJ-DE-MD, and Allentown-Bethlehem-Easton, PA-NJ, improved their rankings slightly on the short-term list, dropping to a tie for 27th place from 20th and 22nd place, respectively. Allegheny County moved up to 5th most polluted county on the short-term particle list, while Philadelphia County improved enough to drop from that list moving to 34th from last report's 25th place. Allegheny County moved up slightly to the 5th most polluted by year-round levels of particles, followed by York at 16th and Lancaster at 20th. Both of the latter counties are in a worse position based on 2002-2004 data than in last year's rankings.

Good news: Chester County moved off the list of the 25 most ozone-polluted counties in the nation, dropping to 30th place from 24th in last year's report. Many counties improved their grades this year; most notably, Mercer and Westmoreland counties, which went up to a C from their previous F grades for particle pollution and Washington County, which improved to a passing grade for year-round levels. Others showing strong improvement in particle exposure this year are Burkes, Erie and Luzerne counties, with grades moving to a D from F grades. Cambria County also improved its ozone grade from an F to a D.

Virginia

Northern Virginia continues to suffer from high levels of air pollution as part of the Washington-Baltimore metropolitan area, as noted above. Fairfax County, part of that metropolitan area, was ranked as the 23rd most ozone-polluted county in the nation, its first time on that list. Virginia counties generally had significantly fewer unhealthy ozone and particle pollution days in 2002-2004 than in 2001-2003. Rockbridge County and Lynchburg City improved their grades to an A for ozone and particle pollution, respectively. In more good news, several counties improved their grades from an F, most notably Page County and Roanoke County for ozone and Richmond City for particle levels, all of which improved to a C grade.

West Virginia

In addition to its DC suburbs included as part of the Washington-Baltimore metropolitan area, other cities in West Virginia ranked among the nation's most polluted. Weirton-Steubenville, WV-OH ranked 12th most polluted by particle pollution year-round, along with Charleston at 20th and Hagerstown-Martinsburg, MD-WV, tied for 22nd. Weirton-Steubenville also landed at 20th place on the list of cities most polluted by particles over the short-term. Hancock County ranked 15th and Brooke County tied for 22nd most polluted year-round by particles, with Kanawha County ranked at 25th.

In good news for West Virginia, many counties had many fewer days with unhealthy air and, consequently, greatly improved their grades during 2002-2004 compared with 2001-2003. Tops on that list are Marion and Ohio counties, where the levels of year-round particles improved enough to give them a passing grade for the first time. Berkley County also improved its air quality enough to improve to a grade of D from an F.

Region 4
Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

Region 4: The Southeast saw some of the strongest improvements in ozone and particle pollution of any region in 2002-2004. Every state in the region had many fewer unhealthy ozone and particle pollution days. Even with those reductions, several cities in the Southeast remained on the lists of most polluted cities in the nation. Three cities made both lists for worst particle pollution levels. Birmingham-Hoover-Cullman, AL tied with Atlanta-Sandy-Springs-Gainesville, GA-AL for 9th most polluted year-round by particle pollution. Birmingham's year-round particle levels worsened from the previous report, which had the city ranked only 15th. Birmingham improved to 17th most polluted by short-term particle pollution from 10th in last year's report. Louisville-Elizabethtown-Scottsburg, KY-IN improved to 18th for short-term particle pollution from 13th and ranked 25th for year-round levels. Parts of Kentucky are included in the Cincinnati-Middletown-Wilmington, OH-KY-IN metropolitan area, which ranked on all three worst lists. Ozone also remained a significant problem, despite these improvements. Knoxville-Sevierville-La Follette, TN and Charlotte-Gastonia-Salisbury, NC-SC remained firmly on the list of most ozone-polluted cities at 14th and 15th, despite improvements. Moving up to the most polluted list for ozone in this year's report was Raleigh-Durham-Cary, NC at 19th.

Alabama

Birmingham's high burden of particle pollution persists, as shown by its continued ranking on both lists for most particle pollution. Birmingham had higher levels of particles year round, but had roughly only half as many days with dangerous spikes in particle levels. The Alabama counties that are extensions of Atlanta's suburbs also risk exposure to the same year-round particle pollution problem that landed Atlanta 9th on the most particle-polluted year-round. Many counties saw fewer unhealthy air pollution days especially for ozone, although two counties had a few additional high particle days in 2002-2004 than in 2001-2003.

The good news in Alabama was that four cities ranked among the cleanest for

short-term levels of particle pollution: Florence-Muscle Shoals, Gadsden, Huntsville-Decatur and Tuscaloosa. Gadsden also ranked among the cleanest for ozone. Etowah County was also one of the cleanest counties in the nation for ozone and short-term levels of particle pollution. Ten other Alabama counties also ranked among the cleanest counties for short-term levels of particles.

Florida

Florida had some of the cleanest cities and counties in the nation. Six cities were among the cleanest cities for ozone pollution: Deltona-Daytona Beach-Palm Coast, Gainesville, Lakeland, Naples-Marco Island, Palm Bay-Melbourne-Titusville and Port St. Lucie-Fort Pierce. Three ranked among the cleanest for year-round particle levels: Palm Bay-Melbourne-Titusville ranked 17th cleanest and Cape Coral-Fort Myers ranked 18th, while Port St. Lucie-Fort Pierce ranked as the 22nd cleanest. In addition to Deltona-Daytona Beach-Palm Coast, Palm Bay-Melbourne-Titusville, Port St. Lucie-Fort Pierce and Cape Coral-Fort Myers, seven other cities made it on the list of the cleanest for short-term particle pollution: Gainesville, Jacksonville, Lakeland, Ocala, Orlando-The Villages, Sarasota-Bradenton-Venice and Tampa-St. Petersburg-Clearwater.

Sixteen counties landed on the list of the cleanest counties for short-term exposure to particles. Fourteen counties were on the list of the cleanest counties for ozone pollution.

Georgia

Atlanta-Sandy Springs-Gainesville, GA-AL remained ranked 9th on the list of the cities most polluted by year-round particle pollution, driven by levels in Fulton County that kept it ranked as the12th most polluted county for that pollutant. Many counties did improve their air quality and their grades from the previous year's report. Most notably, Clarke County improved to passing from its previous failing grade for annual particle pollution. DeKalb County improved to a D from an F for daily particle pollution levels.

Georgia also had cities with good air quality. Athens and Valdosta both made the list of cleanest cities for short-term particle pollution. Brunswick made the list of cleanest cities for ozone pollution. Glynn County ranked among the cleanest counties for ozone, while Clarke, Houston and Lowndes counties were among the cleanest counties for short-term particle pollution.

Kentucky

Louisville-Elizabethtown-Scottsburg, KY-IN continued to have a serious particle pollution problem, though levels dropped from the 2005 report. The Louisville metro area remained on the list of the cities most polluted by short-term and year-round particle pollution, but improved its ranking to 18th from 13th on the short-term list and to 25th from 21st on the year-round ranking. Several northern Kentucky counties were part of the Cincinnati-Middletown-Wilmington, OH-KY-IN metropolitan area that tied for 13th most polluted by year-round particle levels and tied for 20th most polluted by short-term particle pollution. Both of those rankings were improvements over the metropolitan area's 2005 rankings.

Several Kentucky counties improved their air quality from last year's report. Most notably, Fayette County improved to passing from failing the year-round particle grade and Perry County improved to an A from a D in short-term particle pollution. Bell County improved to a D from an F in ozone pollution.

Several Kentucky cities ranked among the cleanest cities for short-term particle pollution: Bowling Green, Corbin-London and Hopkinsville, as part of the Clarksville, TN-KY metropolitan area. Six Kentucky counties were among the cleanest counties for short-term particle pollution and one was among the cleanest counties for ozone pollution.

Mississippi

Mississippi had generally good air quality, with all counties getting passing grades in every category. Hattiesburg earned a spot on the list of the cleanest cities for short-term particles. Warren County earned a similar spot on the list of cleanest counties for ozone pollution.

North Carolina

Ozone remained the biggest air quality problem in North Carolina. Charlotte-Gastonia-Salisbury, NC-SC, remained on the list of most ozone-polluted cities in the nation, but cleaned up enough to improve its ranking to 15th from 12th. Raleigh-Durham-Cary landed on the list of most ozone-polluted cities, moving up to 19th place from 26th in the 2005 report. Several counties improved their air quality, including Yancey County, which improved its ozone grade to a D from an F. Despite the problems with ozone in North Carolina, Swain County earned a spot on the list of cleanest counties for ozone pollution. Jacksonville, Lumberton-Laurinburg and Wilmington ranked among the cleanest cities for short-term particle pollution.

South Carolina

Ozone was the most widespread problem in South Carolina, but particulate pollution emerged as a year-round problem in Greenville County, with that county failing for particle pollution in this year's report. York County, as part of the Charlotte-Gastonia-Salisbury, NC-SC metropolitan area, shared that metro area's ranking as the15th most ozone-polluted city in the nation. The good news came for the City of Florence, which landed on the list of cleanest cities for short-term particle pollution and Berkeley County, which earned a spot on the list of cleanest counties for ozone.

Tennessee

Knoxville-Sevierville-La Follette remained the 14th most ozone-polluted city in the nation, a slightly worse position than in the 2005 report, when it ranked 15th. Blount and Sevier counties, which remain on the list of most ozone-polluted counties in the nation, tied for 24th place. Several counties improved their air quality, including Knox County, which improved to a C from an F in short-term particle pollution. However, Rutherford County dropped its ozone grade to an F from a D in the 2005 report. Eight Tennessee counties landed on the cleanest counties for short-term particle levels.

Region 5
Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

Region 5: These Great Lakes states comprise one of the most seriously polluted regions in the nation. Detroit-Warren-Flint, MI remained ranked as the 6th most polluted city in the nation for year-round particle pollution levels, while also ranking 15th most polluted for short-term levels. Cleveland-Akron-Elyria, OH ranked 8th most polluted by year-round particles, 10th most polluted by short-term particles and 16th for ozone pollution. The Cincinnati-Middletown-Wilmington, OH-KY-IN metropolitan area also ranked on all three lists of most polluted cities, ranking 13th worst for year-round particle pollution and 20th for both short-term particle pollution and ozone. Chicago-Naperville-Michigan City, IL-IN-WI ranked 11th most polluted by year-round particle pollution and 25th for short-term levels.

Columbus-Marion-Chillicothe, OH ranked as the 18th city most polluted by ozone, while Youngstown-Warren-East Liverpool, OH-PA tied Cincinnati for 20th most ozone-polluted. Illinois counties are also part of the St. Louis-St. Charles-Farmington, MO-IL metro area that ranked 24th most ozone-polluted. South Bend-Mishawaka, IN-MI tied Huntington-Ashland, WV-KY-OH for 25th on that list.

The Weirton-Steubenville, WV-OH area ranked on both lists of cities polluted by particle pollution, landing at 12th most polluted year-round and at 20th for short-term levels. Canton-Massillon, OH tied for 18th while Indianapolis-Anderson-Columbus, IN ranked 24th on the list of the cities most polluted by year-round pollution. The Indiana counties share the 18th place rank of Louisville-Elizabethtown-Scottsburg, KY-IN on the list of cities most polluted by short-term particle levels and 25th on the list of those most polluted by year-round levels.

Illinois

Chicago-Naperville-Michigan City, IL-IN-WI remained on both lists for cities with the most particle pollution, but improved its ozone levels sufficiently to drop off the list of most polluted cities for that pollutant, dropping to 31st from 22nd most polluted. However, its continued ranking on the particle lists, at 11th for year-round and 25th for short-term, signals a continuing air quality problem. Madison County tied for 17th among the most polluted counties for year-round particle pollution.

The good news is that several cities earned a place on the lists of cleanest cities. Springfield made the list for cleanest for both ozone and short-term particle pollution, while Champaign-Urbana and Decatur also made the list for cleanest for short-term particle levels. Nine Illinois counties are on the list of cleanest counties for short-term particle pollution, while two were on the cleanest list for ozone. One of those was Sangamon County, which ranked on both the short-term and ozone cleanest counties list.

Indiana

Indianapolis-Anderson-Columbus ranked again among the cities most polluted by year-round particle pollution. Indiana counties next to major cities in other states also were ranked with those cities as among the most polluted in the nation. As

part of the Chicago-Naperville-Michigan City, IL-IN-WI, the Cincinnati-Middletown-Wilmington, OH-KY-IN and the Louisville-Elizabethtown-Scottsburg, KY-IN metropolitan areas, the neighboring Indiana communities are also at risk from the ozone and particle pollution in those cities.

Several Indiana counties improved their air quality, most notably Elkhart and Vanderburgh, which rose from a failing grade to a passing grade in their year-round particle pollution levels.

Michigan

Detroit's position continues high on the lists of the most polluted cities for year-round and short-term particle pollution. Detroit's number of days with spikes in short-term particle pollution actually dropped compared to 2005. Good news for the Detroit metropolitan area came also from its lower levels of ozone pollution. Although still very unhealthy, it improved from being ranked as 20th most ozone-polluted in 2005 to 35th in the nation. The Michigan suburbs of South Bend-Mishawaka, IN-MI were included in that metropolitan area's ranking as tied for 25th most ozone-polluted city. Wayne County ranked 8th among counties most polluted by year-round particle levels and 19th for short-term particle levels.

For good news, the cities of Lansing-East Lansing-Owosso and Saginaw-Bay City-Saginaw Township North each earned a place on the list of cleanest cities for short-term exposure to particle pollution. Four counties are also on the list of cleanest counties for short-term particle levels. Some Michigan counties improved in their air quality. Most notably, Monroe County improved to passing the year-round particle grade from failing it previously. Clinton County improved to a D in ozone from an F; Allegan County improved to a D in short-term particle pollution from an F.

Minnesota

Minnesota has some of the cleanest air quality in the region. Minneapolis-St. Paul-St.Cloud, MN-WI is the largest city on any of the lists of cities ranked cleanest for short-term particle levels. Rochester joined the Twin Cities on that list. Duluth, MN-WI also earned a place on the other two lists of 25 cleanest cities: for year-round particle pollution as well as for ozone. Several Minnesota counties are also on the lists of cleanest counties in the nation for year-round particle and ozone pollution.

Ohio

Ohio has serious and widespread air pollution problems. The metropolitan Cleveland-Akron-Elyria and Cincinnati-Middletown-Wilmington, OH-KY-IN areas rank on all three lists of most polluted cities. Weirton-Steubenville, WV-OH continues on both particle pollution lists, ranking at 20th on the short-term list and 12th on the year-round particle list. Canton-Massillon tied for 18th on the list of cities polluted by year-round particle exposure. Columbus-Marion-Chillicothe and Youngstown-Warren-East Liverpool, OH-PA ranked 18th and tied for 20th respectively on the list of most ozone-polluted cities.

Three Ohio counties—Cuyahoga, Hamilton and Jefferson—ranked among the counties most polluted by both short- and long-term particle levels, while Stark

County was on the list of most polluted year-round.

Good news: Three counties appeared on the list of cleanest counties for short-term particle pollution—Athens, Lorain and Preble. Several other counties cleaned up their air enough to improve their grades. Notably, Lawrence, Lucas, Mahoning and Scioto each improved from failing to passing for year-round pollution levels. Scioto County also improved its short-term particle pollution grade to a C from an F, as did Stark County; while Trumbull County brought its F up to a D.

Wisconsin

Kenosha County, the Wisconsin suburb of Chicago, joins that metropolitan area's rank among the most polluted metropolitan areas in the United States on all three lists. The Wisconsin suburban counties for Minneapolis-St. Paul joined in that metropolitan area's ranking among the cleanest U.S. cities for short-term levels of particle pollution. The Wisconsin suburbs of Duluth added to that city's listing on the cleanest cities for ozone and year-round particle pollution. In addition, Wausau-Merrill earned a place on the list for cleanest cities for ozone levels. Two counties saw big improvements this year in their individual grades. Brown County cleaned up its ozone pollution enough to raise its grade to a C from an F, while Milwaukee County raised its grade for short-term particle pollution to a C from an F.

Region 6
Arkansas, Louisiana, New Mexico, Oklahoma, Texas

Region 6: In these Southwestern states, the biggest air pollution problem is ozone. Four cities rank on the list of the highest levels of ozone pollution in the nation. Houston-Baytown-Huntsville, TX remained anchored in 6th place and Dallas-Fort Worth, TX at 8th. But Baton Rouge-Pierre Part, LA and San Antonio, TX emerged for the first time on the list of most ozone-polluted cities, with Baton Rouge tied for 20th and San Antonio at 23rd. Several cities in the region rank among the cleanest. Most notable are Santa Fe-Espanola, NM and Farmington, NM, which continued their rank as the 2nd and 7th cleanest cities in the United States for year-round particle levels, as well as earning continued spots on the list of cleanest cities for short-term particle levels. Albuquerque, NM ranked 9th on the cleanest for year-round particle pollution list.

Arkansas

Arkansas has generally good air quality, with the exception of Crittenden and Pulaski counties, which have too many high ozone days. Four cities made the list of cleanest cities for short-term particle exposure: Fayetteville-Springdale-Rogers, AR-MO; Fort Smith, AR-OK; Hot Springs; and Texarkana, TX-AK. Ten counties made the list of cleanest counties for short-term particle pollution exposure and one made the list for cleanest counties for ozone.

Louisiana

Baton Rouge-Pierre Part ranked as the 20th most ozone-polluted city in the nation, the first time a Louisiana city has placed on that list. More high ozone days during 2002-2004 in East Baton Rouge Parish apparently drove this, the worst

ranking the city has had. Fortunately, two cities earned spots on the list of the cleanest cities for ozone, Fort Polk South-De Ridder and Houma-Bayou Cane-Thibodaux. Lafayette-Acadiana landed on the list of the cleanest cities for short-term particle levels. In addition, several parishes improved air quality enough to raise their grades; most notably, Jefferson Parish improved to a D from an F in ozone levels.

New Mexico

Fortunately, New Mexico has some of the best air quality in the region. Santa Fe-Espanola remained ranked as the 2nd cleanest city in the nation for year-round levels of particle pollution, while Farmington was ranked 7th cleanest on the same list. Both cities also earned spots on the list of cleanest cities for short-term particle levels. Albuquerque ranked as 9th cleanest city for year-round particle pollution exposure. Three counties landed on the cleanest county list for year-round particle levels and ozone, while six counties were on the cleanest list for short-term particle exposure. Sandoval County ran the rare triple, earning a spot on the cleanest county list for all three pollutant exposures.

Oklahoma

Oklahoma's biggest air pollution problem is unhealthy levels of ozone in Tulsa County. However, Tulsa County and nine other counties rank among the cleanest for short-term exposure to particle pollution. The Tulsa-Bartlesville metropolitan area earned a place on the list of cleanest cities for short-term particle pollution. Three counties earned spots on the list of cleanest counties for ozone air pollution.

Texas

In Texas, the most widespread air pollution problem remained ozone. Houston and Dallas-Fort Worth continue to rank as the 6th and 8th most ozone-polluted cities in the nation. San Antonio joined them on that list for the first time in this report, emerging at 23rd most ozone-polluted city. Harris County and Tarrant County ranked 8th and 11th most ozone-polluted counties.

Despite this, Texas also has some of the nation's cleanest cities for short-term exposure to particle pollution, including Amarillo, Corpus Christi-Kingsville, Lubbock-Levelland, Midland-Odessa and Texarkana, TX-AR. Midland-Odessa also earned a spot on the list of cleanest U.S. cities for year-round particle pollution. Laredo continued to be on the list of cleanest cities for ozone. Ten counties in Texas placed on the list of the cleanest for short-term particle pollution exposure and two made the list for cleanest for ozone pollution. Brewster County earned a rare spot on all three lists of the cleanest counties.

Several counties improved their air quality enough to improve their grades. Most notably, El Paso improved to a D from an F in ozone. Unfortunately, Jefferson and Orange counties had more unhealthy ozone days, so their grade dropped to an F from a D.

Region 7: These Central Midwestern states all share generally good air quality, with the exception of the St. Louis metropolitan area. And that's a big exception, because the St. Louis-St. Charles-Farmington, MO-IL area moved onto the list of most ozone-polluted cities in the United States in this year's report, ranked 24th. Several cities and counties earned spots on the lists of cleanest communities.

Region 7
Iowa, Kansas, Missouri, Nebraska

Iowa
In 2002–2004, Iowa maintained its tradition of clean air quality throughout the state. Four Iowa cities appeared on the list of cleanest for ozone—Ames-Boone, Cedar Rapids, Des Moines-Newton-Pella, and Waterloo-Cedar Falls—and three appeared on the list of cleanest cities for short-term particle pollution—Iowa City, Sioux City-Vermillion, IA-NE-SD and Waterloo-Cedar Falls. Seven counties showed up on the list of cleanest for short-term particle exposure and seven on the list for cleanest for ozone, but only Montgomery County made both lists.

Kansas
Air quality in Kansas remained relatively good, with two counties—Lynn and Sumner—appearing on the list of cleanest for short-term particle pollution. Lynn and Trego counties made the list of cleanest counties for ozone pollution.

Missouri
Despite having cleaner air in the metro area since the previous report, St. Louis-St. Charles-Farmington, MO-IL, emerged on the list of the 25 most ozone-polluted cities this year as others improved more and dropped off the list. Last year, the city tied for 28th most polluted. Columbia and Springfield both made the list of cleanest cities for short-term particle pollution. Six counties—Boone, Cedar, Greene, Maries, Mercer and Monroe—earned places on the list of cleanest counties for short-term particle pollution. Maries County earned special note as it cleaned up enough to earn a grade of A, up from an F, for short-term particle levels. St. Louis City also saw significant improvement in its year-round particle pollution, moving to a passing from a failing grade.

Nebraska
Air quality in Nebraska remained good statewide during 2002-2004. Lincoln remained listed among the cleanest cities in the nation for ozone pollution. Five counties ranked on the list of cleanest for short-term particle pollution—Hall, Lincoln, Sarpy, Scotts Bluff and Washington. Two counties—Douglas and Lancaster—also landed on the list of cleanest for ozone air pollution.

Region 8: Particle pollution remained the worst air quality problem in these Western states. Three cities ranked among the most polluted cities exposed to short-term particle pollution: Salt Lake City-Ogden-Clearfield, UT ranked 5th; Logan, UT-ID, ranked 6th; and Provo-Orem, UT, ranked 9th. Despite those problems, many cities and counties in the region remained ranked among the nation's cleanest.

Region 8
Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

Colorado
Ozone remained the worst air pollution problem in Colorado, as reported in counties near the cities of Denver and Ft. Collins. Despite that, Colorado Springs remained on the list of cleanest cities for all three major pollutant exposures. Fort Collins-Loveland and Pueblo ranked on the list of cleanest cities for short-term and year-round particle levels. The city of Greeley joined them on the list of cleanest cities for short-term particle pollution. Eleven counties earned places on the list of cleanest counties for short-term particles, while three—Archuleta, Elbert and San Miguel—also landed on the list of cleanest for year-round particle levels. Elbert ranked 2nd cleanest, San Miguel ranked 9th and Archuleta ranked 16th. Four other counties ranked on the list of cleanest counties for ozone pollution.

Montana
Great Falls ranked 4th cleanest city for year-round particle pollution levels during 2002-2004. Rosebud County and Sanders County ranked among the cleanest for short-term particle pollution, while Cascade County ranked 14th cleanest for year-round particle pollution levels. Flathead County earned a spot on the list of the counties least polluted by ozone. Montana retained a very unhealthy level of particle pollution in Lincoln County, where wood smoke in Libby is the source of much of the particle problem.[7]

North Dakota
Air quality in North Dakota remained good in 2002-2004. Bismarck and Fargo-Wahpeton, ND-MN earned spots on the list of cleanest cities for short-term particle pollution. Bismarck also made the list for cleanest cities for year-round levels. McKenzie County ranked as one of America's cleanest counties, ranking on all three lists, including 12th cleanest for year-round particle levels. Billings County ranked 3rd cleanest for year-round particle levels, while Burke County also ranked 15th cleanest and Mercer County tied for 22nd on that same list. Billings also ranked on the list of the cleanest counties for ozone pollution. Cass County also showed up on the cleanest for ozone and short-term particles list. Several other counties made the cleanest lists as well.

South Dakota
Another state with generally low levels of air pollution, South Dakota saw Rapid City again rank as one of the cleanest cities in the nation, landing on all three lists of cleanest cities. Sioux Falls was on both the lists for the cleanest cities for ozone and short-term particle pollution levels. Six counties earned a place on the list of cleanest counties for short-term particle pollution levels, while Minnehanna County also made the list of cleanest counties for ozone along with Pennington County. Jackson County ranked 13th and Meade County ranked 22nd on the list of the cleanest for year-round particle levels.

Utah
Short-term particle pollution remains a huge air pollution threat in Utah's largest cities. Salt Lake City-Ogden-Clearfield moved up to 5th most polluted by short-

term particle exposure, with Logan, UT-ID moving onto this list for the first time, ranking 6th. Provo-Orem remained on the list, moving up to 9th most polluted from 15th place last time. Two Utah counties—Cache and San Juan—earned places on the list of the cleanest counties for ozone pollution.

Wyoming
Wyoming's capitol, Cheyenne, ranked among the cleanest cities in the nation for short-term and year-round levels of particle pollution. In fact, it was the cleanest U.S. city for annual particle pollution levels in 2002-2004. Converse County is the cleanest county in the United States for year-round levels of particle pollution. Laramie County ranked 4th on that list, while Campbell County tied as 18th cleanest county in the nation. These three counties and Teton County ranked among the cleanest for short-term particle levels as well, while Teton County was one of the cleanest counties for ozone exposure as well.

Region 9
Arizona, California, Hawaii, Nevada

Region 9: These western states vary greatly in air pollution issues. Although California has led the nation in efforts to reduce air pollution over the past three decades, it remains the state with the most serious pollution problems. By contrast, Hawaii continues to rank as one of the states with the least ozone and particle pollution.

Arizona
Arizona's air pollution problems occur in Maricopa County, home to Phoenix, which recorded fewer unhealthful days for ozone and particle pollution in 2002-2004. By contrast, Flagstaff ranked on the list of the cleanest cities for ozone pollution and short-term particle pollution, while Coconino County was listed as one of the cleanest counties for ozone pollution. Tucson also made the list of the cleanest cities for short-term and year-round particle pollution, ranking 5th on the latter list. Pima County ranked 18th on the list of cleanest counties for year-round particle exposure.

California
California cities and counties continue to dominate the list of places with the highest number of days with high air pollution. Los Angeles-Long Beach-Riverside continues to sit atop two of the lists of most polluted cities and its counties, while Bakersfield moved into the spot of the most ozone-polluted city in the nation. Kern County moved to the top of the list of most polluted counties for ozone, but Riverside remained atop both particle pollution lists. Eight other metropolitan areas in California made the list of the worst cities for short-term particle pollution: Bakersfield at 2nd; Fresno-Madera at 3rd; Sacramento-Arden-Arcade-Truckee, CA-NV at 8th; Visalia-Porterville at 11th; Hanford-Corcoran at 13th; San Diego-Carlsbad-San Marcos at 14th; Modesto at 18th; San Jose-San Francisco-Oakland tied for 20th; and Merced at 23rd. Most of these same cities rank highest in year-round particle pollution as well: Bakersfield at 2nd; Visalia-Porterville at 4th; Fresno-Madera at 5th; and Merced tied at 18th.

On the list of most ozone-polluted cities, seven California cities follow Bakersfield for the first time at the top: Los Angeles ranked at 2nd; Visalia-Porterville at 3rd; Fresno-Madera at 4th; Merced at 5th; Sacramento-Arden-Arcade-Truckee, CA-NV at 7th; Hanford-Corcoran at 11th; and Modesto at 13th.

On the list of most polluted counties, California has 12 on the list of the worst for short-term particle pollution. Riverside County tops the list as the most polluted, followed by Kern County at 2nd; Fresno at 3rd; Los Angeles at 4th; San Bernardino at 7th; Orange at 9th; Sacramento at 12th; Tulare at 15th; Kings at 17th; San Diego at 18th; Stanislaus at 23rd; and Contra Costa at 25th. Nine counties are on the list of most polluted year-round by particles: Riverside in 1st place; San Bernardino, 2nd; Los Angeles, 3rd; Kern, 4th; Tulare, 6th; Fresno, 7th; Kings, 9th; Orange, 10th; and Merced, tied for 22nd. California also had good news about air quality as well. Two counties ranked on the list of the 25 cleanest counties year-round for particle pollution: Lake tied for 9th and Inyo ranked 17th.

Some of the same counties rank among the worst for ozone pollution as well, led by Kern County, which had more unhealthful days in 2002-2004 than it had in 2001-2003. Following Kern are these 14 counties: San Bernardino County, 2nd; Riverside, 3rd; Tulare, 4th; Los Angeles, 5th; Fresno, 6th; Merced, 7th; El Dorado, 9th, Sacramento, 10th, Nevada, 12th; Ventura, 13th; Mariposa, 14th; Kings, 18th; Placer, 19th; and Stanislaus, 22nd. Good news: Thirteen California counties placed on the list of cleanest counties in the nation for ozone: Colusa, Glenn, Lake, Marin, Mendocino, Monterey, Napa, Plumas, San Francisco, San Mateo, Santa Cruz, Siskiyou and Sonoma.

Six counties in California had fewer high ozone days and improved their grades. Several counties improved their short-term particle pollution grades by recording fewer unhealthful days. Three counties—Alameda, Imperial and Plumas—improved from an F to a D.

In addition, Salinas ranked as part of a select group of the cleanest cities in the nation for all three categories of pollutants. Redding, Santa Barbara-Santa Maria-Goleta and San Luis Obispo-Paso Robles joined the cleanest cities lists for short-term and year-round particle exposure, ranking 24th and 25th on the latter.

Hawaii

By contrast to California, Hawaii records almost no days of unhealthy levels of ozone pollution. There are a few days each year with unhealthy levels of particle pollution in Honolulu County, due to the annual fireworks display at the New Year celebration. Despite that, Honolulu County ranked 11th cleanest county for year-round levels of particle pollution. Maui County ranked as the 5th cleanest for year-round particle pollution. Honolulu County and Hawaii County are also two of the cleanest for ozone pollution. The City of Honolulu remains on the list of cleanest cities for both ozone and year-round levels of particle pollution.

Nevada

Clark County in Nevada records that state's highest numbers of unhealthful ozone and particle pollution days. Reno-Sparks ranked as the 21st cleanest city for year-round levels of particle pollution and on the list of cleanest cities for short-term

particle exposure. Douglas County and White Pine County made the list of cleanest for ozone.

Region 10: Particle pollution is the primary air pollution problem in the northwest states.

Region 10
Alaska, Idaho, Oregon, Washington

Alaska
Alaska has one county, Anchorage, that ranked 22nd on the list of cleanest counties for year-round particle pollution. Yukon-Koyukuk County ranked on the list of the cleanest counties for ozone air pollution. The City of Anchorage ranked 6th on the list of cleanest cities for year-round particle pollution. Fairbanks-North Star County had more unhealthful levels of particles in 2002-2004, raising its grade from a D to an F, likely due to the forest fires of the summer of 2004.

Idaho
One city, Lewiston, ID-WA, earned a spot on the list of cleanest cities for short-term particle pollution. Ada County showed the most improvement of any county in the state, with fewer days for short-term exposure to particle pollution, improving its grade to C from an F in the 2005 report. Idaho had six counties listed among the cleanest counties in the nation for short-term exposure to particle pollution. Three counties—Butte, Canyon and Elmore—ranked among the cleanest for ozone.

Oregon
Oregon generally has some of the cleanest air in the nation, but winter peaks of wood smoke in the mountains continually are its biggest air pollution problem. The highest particle pollution levels for 2002-2004 were recorded in the mountainous areas in Lane County where the high levels are largely from winter wood smoke from fireplaces and wood stoves. Lane County, which includes Eugene, was the reason that metropolitan area, Eugene-Springfield ranked 7th worst city for particle pollution in the nation. By contrast, Eugene-Springfield, ranked among the cleanest cities in the nation for ozone pollution. Lane County itself ranked 10th, followed by Klamath County at 11th on the list of worst counties for short-term particle pollution. Although Lane County significantly reduced the number of days it experienced unhealthful particle pollution, Klamath County experienced slightly more.

Oregon's Columbia County ranks as the 23rd cleanest county in the nation for year-round levels of particle pollution; Columbia, Deschutes, Linn and Wasco counties all made the list of cleanest counties for short-term particle pollution. The Albany-Corvallis-Lebanon metropolitan area is one of the nation's cleanest cities for particle pollution, ranking 18th for year round, as well as earning a spot on the list of cleanest cities for short-term exposure. Bend-Prineville also earned a spot among the cleanest cities for short-term particle exposure. In addition to Eugene-Springfield, Salem and Medford landed on the list of cleanest cities for ozone pollution. Oregon suffered a large wildfire in the southern

part of the state in 2002 that raised particle levels in nearby counties, including Jackson and Klamath.

Washington

Bellingham emerged as one of the cleanest cities in the nation, landing on two lists of clean cities, including among the cleanest for short-term levels of particles and for ozone. Spokane and Mount Vernon-Anacortes also landed on the list of cleanest cities for ozone.

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[1] U.S. Environmental Protection Agency. Evaluating Ozone Control Programs in the Eastern United States: Focus on the NO_x Budget Trading Program, 2004. August 2005.
[2] U.S. Environmental Protection Agency. 40, CFR, Parts 51, 72, 75 and 96.
[3] U.S. Environmental Protection Agency. 2005. Two states, Kentucky and Florida, had averaged reductions as large as 3 percent each ozone season during 1997-2002. These rates of change are adjusted for the influence of weather.
[4] U.S. Environmental Protection Agency. 2005.
[5] U.S. Environmental Protection Agency. Acid Rain Program: 2003 Progress Report. September 2004.
[6] U.S. Environmental Protection Agency. The Particle Pollution Report: Current Understanding of Air Quality and Emissions through 2003. December 2004.
[7] Communications with EPA on Libby, MT, woodstove change-out program, 2005.

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		Chronic Diseases					
	Report Year	Adult Asthma	Pediatric Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
Grade A (0.0)	2004	1,098,109	427,013	677,090	238,588	4,417,584	(1)
	2005	1,265,970	486,791	721,673	275,701	6,069,486	1,214,415
	2006	1,907,529	663,978	1,042,736	425,983	8,362,853	1,775,331
Grade B (0.3-0.9)	2004	2,091,803	777,232	1,234,260	429,795	7,998,682	(1)
	2005	2,177,008	850,022	1,165,895	421,841	9,554,840	1,899,681
	2006	2,508,661	882,494	1,296,874	507,256	10,178,986	2,151,354
Grade C (1.0-2.0)	2004	2,494,275	941,891	1,500,267	514,544	9,635,256	(1)
	2005	2,241,512	849,957	1,181,534	419,786	9,612,249	1,905,198
	2006	2,881,178	1,002,944	1,465,631	574,248	11,532,058	2,435,734
Grade D (2.1-3.2)	2004	1,341,788	496,552	783,391	263,649	4,966,969	(1)
	2005	1,711,703	622,929	873,476	312,009	7,131,044	1,413,876
	2006	1,182,987	394,221	597,144	232,231	4,665,231	985,191
Grade F (3.3+)	2004	4,468,378	1,766,912	2,649,823	888,281	16,729,853	(1)
	2005	4,606,903	1,679,638	2,254,726	801,992	18,325,151	3,627,483
	2006	3,907,150	1,421,992	1,974,959	763,403	15,371,186	3,236,265
National Population	2004	11,731,287	4,497,507	6,985,770	2,383,863	44,661,067	(1)
in Counties with	2005	13,606,631	5,060,978	7,032,822	2,540,957	50,692,770	11,444,651
$PM_{2.5}$ Monitors	2006	13,109,352	4,607,401	6,738,927	2,643,257	52,913,571	11,178,920

(1) 2005 was the first year people with diabetes were incorporated as a high risk group.

(2) 2005 was the first year those 18 and under are incorporated as a sensitive group. In previous versions, 14 and under was used.

	Report Year	Age Groups		Total Population	Number of Counties	Number of High $PM_{2.5}$ Days			
		Under 18	Over 65			Orange	Red	Purple	Maroon
Grade A (0.0)	2004	(2)	2,602,983	20,387,885	177	0	0	0	0
	2005	5,720,170	3,216,121	23,463,883	185	0	0	0	0
	2006	7,839,172	4,324,071	32,447,762	218	0	0	0	0
Grade B (0.3-0.9)	2004	(2)	4,618,540	37,207,266	185	224	28	0	0
	2005	9,988,540	4,646,290	39,108,293	194	254	18	0	0
	2006	10,419,050	4,845,683	41,426,762	198	252	17	1	0
Grade C (1.0-2.0)	2004	(2)	5,426,388	45,286,047	136	503	40	0	0
	2005	9,987,706	4,518,985	39,637,741	120	448	28	0	0
	2006	11,841,092	5,475,538	46,848,907	104	371	37	1	0
Grade D (2.1-3.2)	2004	(2)	2,718,105	23,768,590	51	337	34	1	0
	2005	7,319,930	3,358,629	29,187,894	59	381	49	1	0
	2006	4,654,292	2,225,319	18,973,903	37	249	27	0	0
Grade F (3.3+)	2004	(2)	9,356,704	81,757,891	106	2,724	446	7	0
	2005	19,737,219	8,878,003	76,509,309	94	2,494	327	4	0
	2006	16,788,579	7,377,704	64,324,359	71	1,773	236	5	0
National Population	2004	(2)	25,234,335	212,631,740	726	3,788	548	8	0
in Counties with	2005	59,470,893	28,046,929	235,287,598	735	3,577	422	5	0
$PM_{2.5}$ Monitors	2006	54,396,663	25,587,775	215,558,018	718	2,645	317	7	0

Table 1a: *Estimated Populations at Risk from Year-Round Particle Pollution (Annual $PM_{2.5}$)*

		Chronic Diseases						Age Groups			
	Report Year	Adult Asthma	Pediatric Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes	Under 18	Over 65	Total Population	Number of Counties
Pass	2004	6,221,496	2,374,312	3,719,521	1,268,996	23,779,701	(1)	(2)	13,359,480	112,896,625	396
	2005	6,841,000	2,594,982	3,615,962	1,306,929	29,641,691	5,887,389	30,493,216	14,392,539	120,845,855	435
	2006	8,071,754	2,830,224	4,201,235	1,656,530	33,107,960	6,996,832	33,414,601	16,084,169	133,680,848	467
Fail	2004	3,564,838	1,430,102	2,147,177	720,826	13,569,611	(1)	(2)	7,597,861	66,207,360	120
	2005	3,466,484	1,282,823	1,717,548	610,587	13,957,208	2,763,144	15,074,296	6,737,881	58,311,751	82
	2006	3,208,987	1,173,640	1,628,006	627,882	12,672,297	2,665,505	13,856,441	6,032,060	53,054,643	68
National Population in Counties with $PM_{2.5}$ Monitors	2004	9,786,334	3,804,414	5,866,698	1,989,822	37,349,312	(1)	(2)	20,957,341	179,103,985	516
	2005	10,307,484	3,877,805	5,333,510	1,917,516	43,598,899	8,650,533	45,567,512	21,130,420	179,157,606	517
	2006	11,280,741	4,003,864	5,829,241	2,284,412	45,780,257	9,662,337	47,271,042	22,116,229	186,735,491	535

(1) 2005 was the first year people with diabetes were incorporated as a high risk group.

(2) 2005 was the first year those 18 and under were incorporated as a sensitive group. In previous versions, 14 and under was used.

Table 1b: *Estimated Populations at Risk from Ozone*

		Chronic Diseases			
	Report Year	Adult Asthma	Pediatric Asthma	Chronic Bronchitis	Emphysema
Grade A (0.0)	2000	(1)	(1)	(1)	(1)
	2001	(3)	(4)	284,546	93,808
	2002	465,195	(4)	280,766	88,531
	2003	693,062	(4)	434,085	142,547
	2004	791,444	295,702	479,335	163,687
	2005	816,733	300,035	434,229	158,458
	2006	1,101,423	371,502	606,774	253,035
Grade B (0.3-0.9)	2000	(1)	(1)	(1)	(1)
	2001	(3)	(4)	312,045	102,872
	2002	425,752	(4)	254,036	79,264
	2003	538,537	(4)	358,593	123,680
	2004	835,492	312,162	509,065	181,520
	2005	818,571	322,006	483,003	185,875
	2006	1,065,860	384,181	580,847	232,928
Grade C (1.0-2.0)	2000	(1)	(1)	(1)	(1)
	2001	(3)	(4)	351,792	115,972
	2002	600,264	(4)	393,101	135,050
	2003	913,401	(4)	632,374	218,858
	2004	777,159	294,538	482,637	172,954
	2005	1,046,738	400,744	570,187	210,265
	2006	1,183,001	419,134	608,112	238,006
Grade D (2.1-3.2)	2000	(1)	(1)	(1)	(1)
	2001	(3)	(4)	333,759	110,029
	2002	600,649	(4)	353,148	114,780
	2003	615,032	(4)	381,372	121,165
	2004	849,726	352,390	528,588	177,904
	2005	531,289	207,069	284,197	103,901
	2006	413,923	140,501	217,638	88,754
Grade F (3.3+)	2000	(1)	(1)	(1)(1)	
	2001	(3)	(4)	4,785,438	1,577,613
	2002	7,661,492	(4)	4,684,114	1,474,141
	2003	7,435,688	(4)	4,683,692	1,545,546
	2004	7,497,712	2,917,201	4,444,370	1,502,981
	2005	8,402,314	3,118,942	4,224,519	1,502,371
	2006	8,573,183	3,052,922	4,353,739	1,686,664
National Population	2000	(1)	(1)	(1)	(1)
in Counties with	2001	(3)	(4)	6,337,115	2,089,149
Ozone Monitors	2002	10,213,597	(4)	6,272,713	1,992,034
	2003	10,647,981	(4)	6,792,054	2,256,715
	2004	11,275,592	4,343,905	6,744,494	2,305,126
	2005	12,080,816	4,498,334	6,229,914	2,245,723
	2006	12,726,163	4,497,070	6,562,587	2,576,661

Table 1b: (continued)

Estimated Populations at Risk from Ozone

	Age Groups				Number of High Ozone Days		
	Under 18	Over 65	Total Population	Number of Counties	Orange	Red	Purple
Grade A (0.0)	(2)	1,251,960	10,477,773	62	0	0	0
	(2)	1,015,492	8,453,938	55	0	0	0
	(2)	1,027,969	8,542,407	56	0	0	0
	(2)	1,466,426	12,575,124	68	0	0	0
	(2)	1,719,616	14,417,418	77	0	0	0
	3,525,678	1,755,385	14,339,204	87	0	0	0
	4,386,141	2,624,697	18,604,687	110	0	0	0
Grade B (0.3-0.9)	(2)	1,179,695	8,582,029	48	68	0	0
	(2)	1,096,632	9,343,164	41	57	1	0
	(2)	907,336	7,856,880	39	51	0	0
	(2)	1,351,997	10,437,026	53	78	0	0
	(2)	2,021,935	15,211,187	56	77	0	0
	3,783,850	2,198,284	15,646,414	67	97	0	0
	4,535,795	2,328,379	18,337,580	81	118	1	0
Grade C (1.0-2.0)	(2)	1,824,144	12,856,894	59	256	3	0
	(2)	1,514,827	10,269,797	58	254	4	0
	(2)	1,683,397	11,588,825	61	266	5	0
	(2)	2,401,032	18,019,904	79	352	4	0
	(2)	1,918,297	14,373,424	77	324	3	0
	4,709,090	2,379,449	18,887,354	94	397	4	0
	4,948,370	2,280,662	19,486,872	99	429	7	0
Grade D (2.1-3.2)	(2)	1,453,631	10,459,616	54	414	12	0
	(2)	1,334,036	9,821,670	41	314	12	0
	(2)	1,376,837	10,578,028	48	357	10	0
	(2)	1,207,485	11,358,912	33	250	10	0
	(2)	1,861,308	16,275,763	53	420	10	0
	2,433,258	1,148,216	9,502,497	54	413	10	0
	1,658,808	888,495	6,797,619	42	316	11	0
Grade F (3.3+)	(2)	15,944,372	132,494,679	333	9,519	1,335	219
	(2)	17,120,347	141,793,488	382	12,180	1,488	209
	(2)	17,191,083	142,668,846	391	11,952	1,373	182
	(2)	16,144,931	137,206,767	384	10,123	1,088	107
	(2)	15,701,385	136,081,799	373	9,991	1,220	95
	36,650,356	16,313,879	142,743,621	353	9,403	1,319	127
	36,043,999	16,036,647	140,539,448	337	7,551	1,113	101
National Population	(2)	22,992,964	185,164,054	678	10,257	1,350	219
in Counties with	(2)	23,103,750	187,627,908	660	12,805	1,505	209
Ozone Monitors	(2)	23,362,199	190,463,367	678	12,626	1,388	182
	(2)	23,705,025	198,216,448	692	10,803	1,102	107
	(2)	24,393,223	205,205,712	707	10,812	1,233	95
	59,470,893	24,745,650	208,721,127	723	10,310	1,333	127
	53,094,168	24,922,402	209,951,406	737	8,414	1,132	101

(1) Chronic disease estimates for 2000 and 2001 CANNOT BE COMPARED TO EACH OTHER. Between the release dates of these two publications, the National Health Interview Survey completely redesigned their questionnaire and oblierated all trends. Therefore, estimates prior to 1997 cannot be compared with later estimates. The 2000 estimates were obtained from the 1996 NHIS survey while the 2001 estimates were obtained from the revised 1998 NHIS survey.

(2) 2005 was the first year those 18 and under are incorporated as a sensitive group. In previous versions, 14 and under was used.

(3) Adult asthma disease estimates for the 2002 through 2006 reports CANNOT BE COMPARED to those for 2000 and 2001.

(4) Pediatric asthma estimates for the 2004 through 2006 reports CANNOT BE COMPARED to 2000-2003 data. The 2004-2006 estimate represents current asthma prevalence while the past three years of data measured asthma attack prevalence.

Table 2: *People at Risk In 25 U.S. Cities Most Polluted by Short-Term Particle Pollution (24-Hour $PM_{2.5}$)*

2006 Rank[1]	Metropolitan Statistical Areas	Total Population[2]	Under 18[3]	65 and Over[3]	Pediatric Asthma[4,10]	Adult Asthma[5,10]	Chronic Bronchitis[6,10]	Emphysema[7,10]	CV Disease[8,10]	Diabetes[9,10]
1	Los Angeles-Long Beach-Riverside, CA	17,516,110	4,872,222	1,758,285	412,677	969,762	517,046	190,563	3,922,964	820,170
2	Bakersfield, CA	734,846	224,367	66,154	19,004	39,061	20,617	7,335	152,897	31,861
3	Fresno-Madera, CA	1,005,723	304,593	98,575	25,799	53,635	28,576	10,494	215,302	45,047
4	Pittsburgh-New Castle, PA	2,494,949	534,429	432,913	45,266	171,493	86,578	39,272	738,606	158,683
5	Salt Lake City-Ogden-Clearfield, UT	1,559,230	473,703	130,703	40,123	86,781	43,448	14,999	317,352	65,817
6	Logan, UT-ID	109,666	33,962	8,794	2,877	6,076	2,940	949	20,414	4,168
7	Eugene-Springfield, OR	331,594	70,840	45,402	6,000	24,883	11,081	4,537	89,218	18,956
8	Sacramento-Arden-Arcade-Truckee, CA-NV	2,159,756	553,817	250,700	46,908	123,379	67,020	26,119	524,722	110,736
9	Provo-Orem, UT	412,361	141,072	26,834	11,949	21,865	10,322	3,091	68,824	13,891
10	Cleveland-Akron-Elyria, OH	2,942,303	709,772	416,421	60,118	189,311	96,106	40,652	788,868	168,326
11	Visalia-Porterville, CA	401,502	130,518	37,363	11,055	20,726	11,015	4,011	82,489	17,265
12	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	8,026,807	2,012,234	818,310	170,436	467,406	249,148	93,469	1,924,174	404,805
13	Hanford-Corcoran, CA	142,561	39,811	10,374	3,372	7,801	3,987	1,253	27,664	5,627
14	San Diego-Carlsbad-San Marcos, CA	2,931,714	757,564	324,998	64,166	166,491	89,461	33,791	686,222	143,849
15	New York-Newark-Bridgeport, NY-NJ-CT-PA	21,858,830	5,332,462	2,767,878	451,660	1,467,303	697,083	280,071	5,562,521	1,175,966
15	Detroit-Warren-Flint, MI	5,428,855	1,391,873	630,017	117,892	334,560	169,745	66,925	1,343,533	284,277
17	Birmingham-Hoover-Cullman, AL	1,161,382	279,334	148,524	23,660	76,020	37,357	15,117	298,829	63,479
18	Modesto, CA	498,355	148,528	49,560	12,580	26,808	14,316	5,302	108,591	22,752
18	Louisville-Elizabethtown-Scottsburg, KY-IN	1,334,002	326664	161,546	27,668	83,430	42,505	16,939	338,564	71,675
20	Weirton-Steubenville, WV-OH	127,712	25,471	23,871	2,157	9,362	4,574	2,134	39,676	8,565
20	San Jose-San Francisco-Oakland, CA	7,159,693	1,697,248	820,297	143,757	421,938	228,357	88,565	1,793,650	378,145
20	Cincinnati-Middletown-Wilmington, OH-KY-IN	2,100,501	530,912	246,114	44,968	132,969	65,740	25,787	517,182	109,342
23	Merced, CA	237,005	77,167	21,066	6,536	12,205	6,444	2,293	47,584	9,927
24	Harrisburg-Carlisle-Lebanon, PA	643,820	145,406	94,772	12,316	44,257	21,530	9,188	177,610	37,945
25	Chicago-Naperville-Michigan City, IL-IN-WI	9,608,458	2,533,135	1,042,656	214,557	598,199	293,267	111,789	2,273,008	477,889

(1) Cities are ranked using the highest weighted average for any county within that metropolitan area.

(2) **Total Population** represent the at-risk populations for all counties within the respective CSA or MSA.

(3) Those **18 & under** and **65 & over** are vulnerable to $PM_{2.5}$ and are therefore included. They should not be used as population denominators for disease estimates.

(4) **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2004 based on national rates (NHIS) applied to county population estimates (US Census).

(5) **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2004 based on state rates (BRFSS) applied to county population estimates (US Census).

(6) **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed within 2004 based on national rates (NHIS) applied to county population estimates (US Census).

(7) **Emphysema** estimates are for adults 18 and over who have been diagnosed within their lifetime based on national rates (NHIS) applied to county population estimates (US Census).

(8) **CV disease** estimates are based on American Heart Association estimates of cardiovascular disease applied to county populations.

(9) **Diabetes** estimates are for adults 18 and over who have been diagnosed within their lifetime based on national rates (NHIS) applied to county population estimates (US Census).

(10) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

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

2006 Rank[1]	Metropolitan Statistical Areas	Total Population[2]	Under 18[3]	65 and Over[3]	Pediatric Asthma[4,10]	Adult Asthma[5,10]	Chronic Bronchitis[6,10]	Emphysema[7,10]	CV Disease[8,10]	Diabetes[9,10]
1	Los Angeles-Long Beach-Riverside, CA	17,516,110	4,872,222	1,758,285	412,677	969,762	517,046	190,563	3,922,964	820,170
2	Bakersfield, CA	734,846	224,367	66,154	19,004	39,061	20,617	7,335	152,897	31,861
3	Pittsburgh-New Castle, PA	2,494,949	534,429	432,913	45,266	171,493	86,578	39,272	738,606	158,683
4	Visalia-Porterville, CA	401,502	130,518	37,363	11,055	20,726	11,015	4,011	82,489	17,265
5	Fresno-Madera, CA	1,005,723	304,593	98,575	25,799	53,635	28,576	10,494	215,302	45,047
6	Detroit-Warren-Flint, MI	5,428,855	1,391,873	630,017	117,892	334,560	169,745	66,925	1,343,533	284,277
7	Hanford-Corcoran, CA	142,561	39,811	10,374	3,372	7,801	3,987	1,253	27,664	5,627
8	Cleveland-Akron-Elyria, OH	2,942,303	709,772	416,421	60,118	189,311	96,106	40,652	788,868	168,326
9	Birmingham-Hoover-Cullman, AL	1,161,382	279,334	148,524	23,660	76,020	37,357	15,117	298,829	63,479
9	Atlanta-Sandy Springs-Gainesville, GA-AL	5,034,362	1,346,882	403,343	114,081	274,801	147,923	50,442	1,084,733	224,681
11	Chicago-Naperville-Michigan City, IL-IN-WI	9,608,458	2,533,135	1,042,656	214,557	598,199	293,267	111,789	2,273,008	477,889
12	Weirton-Steubenville, WV-OH	127,712	25,471	23,871	2,157	9,362	4,574	2,134	39,676	8,565
13	York-Hanover-Gettysburg, PA	499,935	116,635	68,179	9,879	34,237	16,415	6,825	133,737	28,466
13	St. Louis-St. Charles-Farmington, MO-IL	2,824,778	692,806	361,144	58,681	191,293	90,294	36,582	723,152	153,458
13	Cincinnati-Middletown-Wilmington, OH-KY-IN	2,100,501	530,912	246,114	44,968	132,969	65,740	25,787	517,182	109,342
16	New York-Newark-Bridgeport, NY-NJ-CT-PA	21,858,830	5,332,462	2,767,878	451,660	1,467,303	697,083	280,071	5,562,521	1,175,966
16	Lancaster, PA	487,332	125,918	69,059	10,665	32,095	15,523	6,580	127,152	27,106
18	Merced, CA	237,005	77,167	21,066	6,536	12,205	6,444	2,293	47,584	9,927
18	Canton-Massillon, OH	410,805	96,625	62,507	8,184	26,569	13,682	5,959	114,136	24,462
20	Charleston, WV	307,763	66,786	46,781	5,657	24,324	10,528	4,580	88,260	18,907
21	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	8,026,807	2,012,234	818,310	170,436	467,406	249,148	93,469	1,924,174	404,805
22	Reading, PA	391,640	93,203	55,741	7,894	26,559	12,771	5,359	103,981	22,147
22	Hagerstown-Martinsburg, MD-WV	244,796	57,378	31,715	4,860	16,391	7,910	3,187	63,227	13,359
24	Indianapolis-Anderson-Columbus, IN	1,939,349	516,493	216,475	43,747	119,784	59,300	22,945	464,051	97,681
25	Louisville-Elizabethtown-Scottsburg, KY-IN	1,334,002	326664	161,546	27,668	83,430	42,505	16,939	338,564	71,675

(1) Cities are ranked using the highest design value for any county within that metropolitan area.

(2) **Total Population** represent the at-risk populations for all counties within the respective CSA or MSA.

(3) Those **18 & under** and **65 & over** are vulnerable to $PM_{2.5}$ and are therefore included. They should not be used as population denominators for disease estimates.

(4) **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2004 based on national rates (NHIS) applied to county population estimates (US Census).

(5) **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2004 based on state rates (BRFSS) applied to county population estimates (US Census).

(6) **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed within 2004 based on national rates (NHIS) applied to county population estimates (US Census).

(7) **Emphysema** estimates are for adults 18 and over who have been diagnosed within their lifetime based on national rates (NHIS) applied to county population estimates (US Census).

(8) **CV disease** estimates are based on American Heart Association estimates of cardiovascular disease applied to county populations.

(9) **Diabetes** estimates are for adults 18 and over who have been diagnosed within their lifetime based on national rates (NHIS) applied to county population estimates (US Census).

(10) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

Table 2b: *People at Risk In 25 Most Ozone-Polluted Cities*

2006 Rank[1]	Metropolitan Statistical Areas	Total Population[2]	Under 18[3]	65 and Over[3]	Pediatric Asthma[4,8]	Adult Asthma[5,8]	Chronic Bronchitis[6,8]	Emphysema[7,8]
1	Bakersfield, CA	734,846	224,367	66,154	19,004	39,061	20,617	7,335
2	Los Angeles-Long Beach-Riverside, CA	17,516,110	4,872,222	1,758,285	412,677	969,762	517,046	190,563
3	Visalia-Porterville, CA	401,502	130,518	37,363	11,055	20,726	11,015	4,011
4	Fresno-Madera, CA	1,005,723	304,593	98,575	25,799	53,635	28,576	10,494
5	Merced, CA	237,005	77,167	21,066	6,536	12,205	6,444	2,293
6	Houston-Baytown-Huntsville, TX	5,280,752	1,495,654	416,757	126,682	272,580	152,619	52,613
7	Sacramento-Arden-Arcade-Truckee, CA-NV	2,159,756	553,817	250,700	46,908	123,379	67,020	26,119
8	Dallas-Fort Worth, TX	5,931,956	1,652,762	487,107	139,989	307,273	172,023	59,293
9	New York-Newark-Bridgeport, NY-NJ-CT-PA	21,858,830	5,332,462	2,767,878	451,660	1,467,303	697,083	280,071
10	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	5,951,797	1,465,094	774,475	124,093	400,635	190,445	77,708
11	Hanford-Corcoran, CA	142,561	39,811	10,374	3,372	7,801	3,987	1,253
12	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	8,026,807	2,012,234	818,310	170,436	467,406	249,148	93,469
13	Modesto, CA	498,355	148,528	49,560	12,580	26,808	14,316	5,302
14	Knoxville-Sevierville-La Follette, TN	817,867	176,910	113,922	14,984	57,435	27,350	11,312
15	Charlotte-Gastonia-Salisbury, NC-SC	2,067,810	532,770	219,247	45,126	116,343	63,430	23,913
16	Cleveland-Akron-Elyria, OH	2,942,303	709,772	416,421	60,118	189,311	96,106	40,652
17	Pittsburgh-New Castle, PA	2,494,949	534,429	432,913	45,266	171,493	86,578	39,272
18	Columbus-Marion-Chillicothe, OH	1,920,601	477,729	200,195	40,464	123,622	59,340	22,074
19	Raleigh-Durham-Cary, NC	1,467,434	369,045	129,254	31,258	82,865	44,212	15,364
20	Youngstown-Warren-East Liverpool, OH-PA	701,557	157,392	117,341	13,331	46,138	23,957	10,768
20	Cincinnati-Middletown-Wilmington, OH-KY-IN	2,100,501	530,912	246,114	44,968	132,969	65,740	25,787
20	Baton Rouge-Pierre Part, LA	751,965	190,962	74,347	16,174	34,181	22,968	8,406
23	San Antonio, TX	1,854,050	513,395	198,796	43,485	96,115	55,351	20,990
24	St. Louis-St. Charles-Farmington, MO-IL	2,824,778	692,806	361,144	58,681	191,293	90,294	36,582
25	South Bend-Mishawaka, IN-MI	318,192	81,611	42,423	6,912	19,849	10,054	4,142
25	Huntington-Ashland, WV-KY-OH	287,038	61,356	44,520	5,197	20,664	9,776	4,220
25	Buffalo-Niagara-Cattaraugus, NY	1,237,557	285,124	191,098	24,150	84,449	41,308	17,929

(1) Cities are ranked using the highest weighted average for any county within that metropolitan area.

(2) **Total Population** represent the at-risk populations for all counties within the respective CSA or MSA.

(3) Those **18 & under** and **65 & over** are vulnerable to ozone and are therefore included. They should not be used as population denominators for disease estimates.

(4) **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of children who had asthma based on 2004 national rates (NHIS) applied to county population estimates (US Census).

(5) **Adult asthma** estimates are for those 18 years and older and represents the estimated number of people who had asthma during 2004 based on state rates (BRFSS) applied to county population estimates (US Census).

(6) **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed with this disease within 2004 based on national rates (NHIS) applied to county population estimates (US Census).

(7) **Emphysema** estimates are for adults 18 and over who have been diagnosed with this disease within their lifetime based on national rates (NHIS) applied to county population estimates (US Census).

(8) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

Table 3: *People at Risk in 25 Counties Most Polluted by Short-Term Particle Pollution (24-Hour $PM_{2.5}$)*

						At-Risk Groups						High $PM_{2.5}$ Days in Unhealthy Ranges 2002-2004	
2006 Rank[1]	County	ST	Total Population[2]	Under 18[3]	65 and Over[3]	Pediatric Asthma[4,10]	Adult Asthma[5,10]	Chronic Bronchitis[6,10]	Emphysema[7,10]	CV Disease[8]	Diabetes[9]	Weighted Avg.[11]	Grade[12]
1	RIVERSIDE	CA	1,871,950	534,328	217,741	45,258	101,805	55,076	21,193	424,140	88,859	54.8	F
2	KERN	CA	734,846	224,367	66,154	19,004	39,061	20,617	7,335	152,897	31,861	42.7	F
3	FRESNO	CA	866,772	265,454	83,825	22,484	45,996	24,480	8,957	184,033	38,496	40.0	F
4	LOS ANGELES	CA	9,937,739	2,732,330	988,760	231,428	552,691	294,228	107,900	2,227,574	465,287	39.7	F
5	ALLEGHENY	PA	1,250,867	267,531	215,799	22,660	86,088	43,299	19,545	367,940	78,994	39.5	F
6	SALT LAKE	UT	935,295	277,596	76,966	23,512	52,612	26,269	8,986	191,326	39,595	23.8	F
7	SAN BERNARDINO	CA	1,921,131	590,853	157,655	50,045	101,975	53,378	18,462	390,748	81,249	21.8	F
8	CACHE	UT	97,467	29,867	7,416	2,530	5,435	2,602	815	17,772	3,607	18.5	F
9	ORANGE	CA	2,987,591	796,815	309,791	67,490	168,504	90,221	33,759	692,672	145,112	18.3	F
10	LANE	OR	331,594	70,840	45,402	6,000	24,883	11,081	4,537	89,218	18,956	16.5	F
11	KLAMATH	OR	65,098	15,890	9,927	1,346	4,652	2,147	940	17,920	3,852	15.8	F
12	SACRAMENTO	CA	1,352,445	367,147	146,673	31,097	75,639	40,699	15,457	314,162	65,910	15.2	F
13	UTAH	UT	403,352	137,898	25,934	11,680	21,401	10,084	3,002	67,027	13,514	12.7	F
14	CUYAHOGA	OH	1,351,009	327,852	205,816	27,769	86,470	44,413	19,309	369,684	79,015	12.0	F
15	TULARE	CA	401,502	130,518	37,363	11,055	20,726	11,015	4,011	82,489	17,265	11.5	F
16	BALTIMORE CITY	MD	636,251	160,677	79,074	13,609	37,160	19,992	7,980	158,135	33,518	10.5	F
17	KINGS	CA	142,561	39,811	10,374	3,372	7,801	3,987	1,253	27,664	5,627	9.7	F
18	SAN DIEGO	CA	2,931,714	757,564	324,998	64,166	166,491	89,461	33,791	686,222	143,849	9.0	F
19	NEW HAVEN	CT	845,694	200,799	117,972	17,008	62,361	27,556	11,489	223,876	47,643	8.8	F
19	WAYNE	MI	2,016,202	559,268	234,849	47,370	120,639	61,309	24,356	486,553	102,901	8.8	F
19	UNION	NJ	531,957	136,245	68,742	11,540	34,068	16,801	6,867	135,339	28,695	8.8	F
22	JEFFERSON	AL	658,495	158,291	88,434	13,407	43,214	21,304	8,779	172,546	36,598	8.7	F
23	STANISLAUS	CA	498,355	148,528	49,560	12,580	26,808	14,316	5,302	108,591	22,752	8.2	F
23	JEFFERSON	KY	700,030	167,514	93,471	14,188	43,835	22,714	9,366	184,212	39,112	8.2	F
25	CONTRA COSTA	CA	1,009,144	261,015	113,985	22,108	58,009	31,544	12,432	250,153	53,055	8.0	F
25	HAMILTON	OH	814,611	202,699	110,223	17,169	51,954	26,082	10,801	211,000	44,886	8.0	F
25	JEFFERSON	OH	71,420	14,415	13,279	1,221	4,784	2,547	1,186	22,050	4,759	8.0	F

(1) Counties are ranked by weighted average. See note 9 below.

(2) **Total Population** represent the at-risk populations in counties with $PM_{2.5}$ monitors.

(3) Those **18 & under** and **65 & over** are vulnerable to $PM_{2.5}$ and are therefore included. They should not be used as population denominators for disease estimates.

(4) **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2004 based on national rates (NHIS) applied to county population estimates (US Census).

(5) **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2004 based on state rates (BRFSS) applied to county population estimates (US Census).

(6) **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed within 2004 based on national rates (NHIS) applied to county population estimates (US Census).

(7) **Emphysema** estimates are for adults 18 and over who have been diagnosed within their lifetime based on national rates (NHIS) applied to county population estimates (US Census).

(8) **CV disease** estimates are based on American Heart Association estimates of cardiovascular disease applied to county populations.

(9) **Diabetes** estimates are for adults 18 and over who have been diagnosed within their lifetime based on national rates (NHIS) applied to county population estimates (US Census).

(10) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

(11) The **weighted average** was derived by counting the number of days in each unhealthful range (orange, red, purple) in each year (2002-2004), multiplying the total in each range by the assigned standard weights (i.e., 1 for orange, 1.5 for red, 2.0 for purple), and calculating the average.

(12) **Grades** are assigned by weighted average as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.

Table 3a: *People at Risk In 25 Counties Most Polluted by Long-Term Particle Pollution (Annual $PM_{2.5}$)*

				At-Risk Groups								$PM_{2.5}$ Annual, 2002-2004	
2006 Rank[1]	County	ST	Total Population[2]	Under 18[3]	65 and Over[3]	Pediatric Asthma[4,10]	Adult Asthma[5,10]	Chronic Bronchitis[6,10]	Emphysema[7,10]	CV Disease[8]	Diabetes[9]	Design Value[11]	Pass/ Fail[12]
1	RIVERSIDE	CA	1,871,950	534,328	217,741	45,258	101,805	55,076	21,193	424,140	88,859	24.8	FAIL
2	SAN BERNARDINO	CA	1,921,131	590,853	157,655	50,045	101,975	53,378	18,462	390,748	81,249	23.4	FAIL
3	LOS ANGELES	CA	9,937,739	2,732,330	988,760	231,428	552,691	294,228	107,900	2,227,574	465,287	21.7	FAIL
4	KERN	CA	734,846	224,367	66,154	19,004	39,061	20,617	7,335	152,897	31,861	20.6	FAIL
5	ALLEGHENY	PA	1,250,867	267,531	215,799	22,660	86,088	43,299	19,545	367,940	78,994	20.4	FAIL
6	TULARE	CA	401,502	130,518	37,363	11,055	20,726	11,015	4,011	82,489	17,265	19.5	FAIL
7	FRESNO	CA	866,772	265,454	83,825	22,484	45,996	24,480	8,957	184,033	38,496	18.7	FAIL
8	WAYNE	MI	2,016,202	559,268	234,849	47,370	120,639	61,309	24,356	486,553	102,901	18.6	FAIL
9	KINGS	CA	142,561	39,811	10,374	3,372	7,801	3,987	1,253	27,664	5,627	18.4	FAIL
10	ORANGE	CA	2,987,591	796,815	309,791	67,490	168,504	90,221	33,759	692,672	145,112	17.6	FAIL
10	CUYAHOGA	OH	1,351,009	327,852	205,816	27,769	86,470	44,413	19,309	369,684	79,015	17.6	FAIL
12	JEFFERSON	AL	658,495	158,291	88,434	13,407	43,214	21,304	8,779	172,546	36,598	17.5	FAIL
12	FULTON	GA	814,438	206,588	62,709	17,498	45,245	24,351	8,204	177,635	36,843	17.5	FAIL
14	LAKE	IN	490,844	129,702	63,351	10,986	30,484	15,416	6,363	124,995	26,580	17.2	FAIL
15	HANCOCK	WV	31,507	6,343	5,936	537	2,549	1,131	532	9,889	2,133	17.0	FAIL
16	MADISON	IL	264,350	62,923	37,166	5,330	17,046	8,594	3,582	69,746	14,823	16.9	FAIL
16	HAMILTON	OH	814,611	202,699	110,223	17,169	51,954	26,082	10,801	211,000	44,886	16.9	FAIL
16	JEFFERSON	OH	71,420	14,415	13,279	1,221	4,784	2,547	1,186	22,050	4,759	16.9	FAIL
16	YORK	PA	401,613	93,985	54,653	7,961	27,477	13,195	5,497	107,774	22,942	16.9	FAIL
20	NEW YORK	NY	1,562,723	269,996	195,325	22,869	114,728	53,057	19,999	408,564	84,923	16.8	FAIL
20	LANCASTER	PA	487,332	125,918	69,059	10,665	32,095	15,523	6,580	127,152	27,106	16.8	FAIL
22	MERCED	CA	237,005	77,167	21,066	6,536	12,205	6,444	2,293	47,584	9,927	16.5	FAIL
22	STARK	OH	381,229	89,766	58,212	7,603	24,644	12,695	5,535	105,936	22,707	16.5	FAIL
22	BROOKE	WV	24,785	4,713	4,656	399	2,029	896	416	7,737	1,672	16.5	FAIL
25	KANAWHA	WV	195,218	41,084	32,162	3,480	15,577	6,801	3,043	57,876	12,430	16.4	FAIL

(1) Counties are ranked by design value. See note 11 below.

(2) **Total Population** represent the at-risk populations in counties with $PM_{2.5}$ monitors.

(3) Those **18 & under** and **65 & over** are vulnerable to $PM_{2.5}$ and are therefore included. They should not be used as population denominators for disease estimates.

(4) **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2004 based on national rates (NHIS) applied to county population estimates (US Census).

(5) **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2004 based on state rates (BRFSS) applied to county population estimates (US Census).

(6) **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed within 2004 based on national rates (NHIS) applied to county population estimates (US Census).

(7) **Emphysema** estimates are for adults 18 and over who have been diagnosed within their lifetime based on national rates (NHIS) applied to county population estimates (US Census).

(8) **CV disease** estimates are based on American Heart Association estimates of cardiovascular disease applied to county populations.

(9) **Diabetes** estimates are for adults 18 and over who have been diagnosed within their lifetime based on national rates (NHIS) applied to county population estimates (US Census).

(10) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

(11) The **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 or not the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 12, 2005.

(12) **Grades** are based on EPA's determination of meeting or failure to meet the NAAQS for annual $PM_{2.5}$ levels during 2002-2004. Counties meeting the NAAQS received grades of Pass; counties not meeting received grades of Fail.

Table 3b: *People at Risk in 25 Most Ozone-Polluted Counties*

				At-Risk Groups						High Ozone Days in Unhealthy Ranges 2002-2004	
2006 Rank[1]	County	ST	Total Population[2]	Under 18[3]	65 and Over[3]	Pediatric Asthma[4,8]	Adult Asthma[5,8]	Chronic Bronchitis[6,8]	Emphysema[7,8]	Weighted Avg[9]	Grade[10]
1	KERN	CA	734,846	224,367	66,154	19,004	39,061	20,617	7,335	115.0	F
2	SAN BERNARDINO	CA	1,921,131	590,853	157,655	50,045	101,975	53,378	18,462	109.0	F
3	RIVERSIDE	CA	1,871,950	534,328	217,741	45,258	101,805	55,076	21,193	93.2	F
4	TULARE	CA	401,502	130,518	37,363	11,055	20,726	11,015	4,011	91.8	F
5	LOS ANGELES	CA	9,937,739	2,732,330	988,760	231,428	552,691	294,228	107,900	85.8	F
6	FRESNO	CA	866,772	265,454	83,825	22,484	45,996	24,480	8,957	77.7	F
7	MERCED	CA	237,005	77,167	21,066	6,536	12,205	6,444	2,293	43.3	F
8	HARRIS	TX	3,644,285	1,055,071	274,447	89,365	186,301	103,828	35,198	39.2	F
9	EL DORADO	CA	172,889	40,496	20,297	3,430	10,349	5,666	2,286	29.2	F
10	SACRAMENTO	CA	1,352,445	367,147	146,673	31,097	75,639	40,699	15,457	25.2	F
11	TARRANT	TX	1,588,088	447,160	131,672	37,874	81,991	46,009	15,990	24.8	F
12	NEVADA	CA	97,660	19,860	16,613	1,682	6,068	3,483	1,594	22.3	F
13	VENTURA	CA	797,699	217,896	84,338	18,456	44,787	24,143	9,248	21.7	F
14	MARIPOSA	CA	18,003	3,430	3,124	291	1,130	646	293	21.3	F
15	FAIRFIELD	CT	903,291	229,833	117,561	19,467	65,152	28,837	11,942	18.2	F
16	CAMDEN	NJ	516,282	135,208	62,718	11,452	32,848	16,101	6,462	17.8	F
16	OCEAN	NJ	553,251	128,397	116,654	10,875	36,038	19,099	9,321	17.8	F
18	KINGS	CA	142,561	39,811	10,374	3,372	7,801	3,987	1,253	17.2	F
19	PLACER	CA	307,004	71,881	42,287	6,088	18,092	10,010	4,137	17.0	F
20	ANNE ARUNDEL	MD	508,572	126,463	52,629	10,711	29,911	15,914	6,037	16.8	F
21	HARFORD	MD	235,594	61,959	25,210	5,248	13,589	7,282	2,820	16.7	F
22	STANISLAUS	CA	498,355	148,528	49,560	12,580	26,808	14,316	5,302	15.8	F
23	FAIRFAX	VA	1,003,157	253,602	87,005	21,480	54,779	31,208	11,497	15.3	F
24	NEW HAVEN	CT	845,694	200,799	117,972	17,008	62,361	27,556	11,489	14.8	F
24	BLOUNT	TN	113,744	24,674	16,160	2,090	7,989	3,817	1,595	14.8	F
24	SEVIER	TN	77,270	16,820	10,554	1,425	5,424	2,587	1,070	14.8	F

(1) Counties are ranked by weighted average. See note 11 below.

(2) **Total Population** represent the at-risk populations in counties with ozone monitors.

(3) Those **18 & under** and **65 & over** are vulnerable to ozone and are therefore included. They should not be used as population denominators for disease estimates.

(4) **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2004 based on national rates (NHIS) applied to county population estimates (US Census).

(5) **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2004 based on state rates (BRFSS) applied to county population estimates (US Census).

(6) **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed within 2004 based on national rates (NHIS) applied to county population estimates (US Census).

(7) **Emphysema** estimates are for adults 18 and over who have been diagnosed within their lifetime based on national rates (NHIS) applied to county population estimates (US Census).

(8) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

(9) The **weighted average** was derived by counting the number of days in each unhealthful range (orange, red, purple) in each year (2002-2004), multiplying the total in each range by the assigned standard weights (i.e., 1 for orange, 1.5 for red, 2.0 for purple), and calculating the average.

(10) **Grades** are assigned by weighted average as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.

Table 4: *Counties with the Worst Particle Pollution ($PM_{2.5}$ 24-Hour and Annual Averages) in Each State*

			Short-Term (24-Hour)		Annual	
County	**ST**[1]	**Metropolitan Statistical Area**	Weighted Average[2]	Grade[3]	Value[4]	Pass/ Fail[5]
Jefferson	AL	Birmingham-Hoover-Cullman, AL	8.7	F	17.5	FAIL
Fairbanks North Star	AK	Fairbanks, AK	5.8	F	11.6	PASS
Maricopa	AZ	Phoenix-Mesa-Scottsdale, AZ	2.2	D	10.9	PASS
Riverside	CA	Los Angeles-Long Beach-Riverside, CA	54.8	F	24.8	FAIL
New Haven	CT	New York-Newark-Bridgeport, NY-NJ-CT-PA	8.8	F	13.4	PASS
New Castle	DE	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	5.8	F	15.3	FAIL
Washington	DC	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	6.3	F	15.1	FAIL
Miami-Dade	FL	Miami-Fort Lauderdale-Miami Beach, FL	1.0	C	9.4	PASS
Fulton	GA	Atlanta-Sandy Springs-Gainesville, GA-AL	4.0	F	17.5	FAIL
Honolulu	HI	Honolulu, HI	2.5	D	5.2	PASS
Canyon	ID	Boise City-Nampa, ID	2.5	D	8.7	PASS
Cook	IL	Chicago-Naperville-Michigan City, IL-IN-WI	7.0	F	16.0	FAIL
Madison	IL	St. Louis-St. Charles-Farmington, MO-IL	3.0	D	16.9	FAIL
Lake	IN	Chicago-Naperville-Michigan City, IL-IN-WI	5.7	F	17.2	FAIL
Jefferson	KY	Louisville-Elizabethtown-Scottsburg, KY-IN	8.2	F	15.9	FAIL
Aroostook	ME		1.0	C	11.2	PASS
Baltimore City	MD	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	10.5	F	16.3	FAIL
Hampden	MA	Springfield, MA	5.7	F	12.8	PASS
Wayne	MI	Detroit-Warren-Flint, MI	8.8	F	18.6	FAIL
Saint Louis City	MO	St. Louis-St. Charles-Farmington, MO-IL	3.7	F	14.6	PASS
Flathead	MT		3.7	F	10.7	PASS
Lincoln	MT		2.3	D	15.2	FAIL
Clark	NV	Las Vegas-Paradise-Pahrump, NV	1.5	C	9.3	PASS
Union	NJ	New York-Newark-Bridgeport, NY-NJ-CT-PA	8.8	F	15.4	FAIL
Dona Ana	NM	Las Cruces, NM	1.0	C	11.2	PASS
Bronx	NY	New York-Newark-Bridgeport, NY-NJ-CT-PA	6.2	F	15.4	FAIL
New York	NY	New York-Newark-Bridgeport, NY-NJ-CT-PA	3.2	D	16.8	FAIL
Guilford	NC	Greensboro—Winston-Salem—High Point, NC	2.3	D	13.7	PASS
Mecklenburg	NC	Charlotte-Gastonia-Salisbury, NC-SC	2.3	D	14.9	PASS
Davidson	NC	Greensboro—Winston-Salem—High Point, NC	1.3	C	15.4	FAIL
Cuyahoga	OH	Cleveland-Akron-Elyria, OH	12.0	F	17.6	FAIL
Lane	OR	Eugene-Springfield, OR	16.5	F	12.8	PASS
Allegheny	PA	Pittsburgh-New Castle, PA	39.5	F	20.4	FAIL
Providence	RI	Providence-New Bedford-Fall River, RI-MA	2.5	D	12.6	PASS
Greenville	SC	Greenville-Spartanburg-Anderson, SC	0.3	B	15.8	FAIL
Hamilton	TN	Chattanooga-Cleveland-Athens, TN-GA	0.3	B	15.7	FAIL
Knox	TN	Knoxville-Sevierville-La Follette, TN	2.0	C	15.7	FAIL
El Paso	TX	El Paso, TX	6.2	F	*	INC
Harris	TX	Houston-Baytown-Huntsville, TX	2.0	C	14.4	PASS
Salt Lake	UT	Salt Lake City-Ogden-Clearfield, UT	23.8	F	15.2	FAIL
Fairfax	VA	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	2.7	D	13.9	PASS
Pierce	WA	Seattle-Tacoma-Olympia, WA	4.0	F	10.5	PASS
Hancock	WV	Weirton-Steubenville, WV-OH	5.0	F	17.0	FAIL
Dodge	WI	Fond du Lac-Beaver Dam, WI	1.0	C	10.9	PASS
Milwaukee	WI	Milwaukee-Racine-Waukesha, WI	1.0	C	12.5	PASS

(1) States were not included if respective counties got a grade of B or better for the 24-hour standard and a Passing grade for the annual standard.
(2) The **weighted average** was derived by counting the number of days in each unhealthful range (orange, red, purple) in each year (2001-2003), multiplying the total in each range by the assigned standard weights (i.e., 1 for orange, 1.5 for red, 2.0 for purple), and calculating the average.
(3) Grades are assigned by weighted average as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(4) The 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 or not the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 12, 2005. An asterisk (*) indicates that sufficient data were not available to grade that county.
(5) Grades are based on EPA's determination of meeting or failure to meet the NAAQS for annual $PM_{2.5}$ levels during 2002-2004. Counties meeting the NAAQS received grades of Pass; counties not meeting received grades of Fail.

Table 4a: *Counties with the Worst Ozone Air Pollution in Each State*

COUNTY	ST[1]	Metropolitan Statistical Area	OZONE WGT. AVG.[2]	GRADE[3]
JEFFERSON	AL	Birmingham-Hoover-Cullman, AL	5.8	F
MARICOPA	AZ	Phoenix-Mesa-Scottsdale, AZ	8.8	F
CRITTENDEN	AR	Memphis, TN-MS-AR	4.2	F
KERN	CA	Bakersfield, CA	115.0	F
JEFFERSON	CO	Denver-Aurora-Boulder, CO	7.7	F
FAIRFIELD	CT	New York-Newark-Bridgeport, NY-NJ-CT-PA	18.2	F
NEW CASTLE	DE	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	9.5	F
WASHINGTON	DC	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	10.7	F
ESCAMBIA	FL	Pensacola-Ferry Pass-Brent, FL	2.3	D
SARASOTA	FL	Sarasota-Bradenton-Venice, FL	2.3	D
FULTON	GA	Atlanta-Sandy Springs-Gainesville, GA-AL	9.3	F
MADISON	IL	St. Louis-St. Charles-Farmington, MO-IL	9.5	F
SAINT JOSEPH	IN	South Bend-Mishawaka, IN-MI	10.2	F
WYANDOTTE	KS	Kansas City-Overland Park-Kansas City, MO-KS	1.7	C
BOYD	KY	Huntington-Ashland, WV-KY-OH	10.2	F
EAST BATON ROUGE	LA	Baton Rouge-Pierre Part, LA	11.0	F
YORK	ME	Portland-Lewiston-South Portland, ME	7.0	F
ANNE ARUNDEL	MD	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	16.8	F
NORFOLK	MA	Boston-Worcester-Manchester, MA-NH	9.0	F
ALLEGAN	MI	Grand Rapids-Muskegon-Holland, MI	10.0	F
CASS	MI	South Bend-Mishawaka, IN-MI	10.0	F
DE SOTO	MS	Memphis, TN-MS-AR	3.0	D
SAINT CHARLES	MO	St. Louis-St. Charles-Farmington, MO-IL	10.7	F
CLARK	NV	Las Vegas-Paradise-Pahrump, NV	6.7	F
HILLSBOROUGH	NH	Boston-Worcester-Manchester, MA-NH	4.7	F
CAMDEN	NJ	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	17.8	F
OCEAN	NJ	New York-Newark-Bridgeport, NY-NJ-CT-PA	17.8	F
DONA ANA	NM	Las Cruces, NM	1.3	C
CHAUTAUQUA	NY		12.2	F
ROWAN	NC	Charlotte-Gastonia-Salisbury, NC-SC	14.7	F
GEAUGA	OH	Cleveland-Akron-Elyria, OH	13.5	F
TULSA	OK	Tulsa-Bartlesville, OK	5.0	F
CHESTER	PA	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	13.3	F
WASHINGTON	RI	Providence-New Bedford-Fall River, RI-MA	7.2	F
SPARTANBURG	SC	Greenville-Spartanburg-Anderson, SC	8.2	F
BLOUNT	TN	Knoxville-Sevierville-La Follette, TN	14.8	F
SEVIER	TN	Knoxville-Sevierville-La Follette, TN	14.8	F
HARRIS	TX	Houston-Baytown-Huntsville, TX	39.2	F
SALT LAKE	UT	Salt Lake City-Ogden-Clearfield, UT	3.7	F
BENNINGTON	VT		2.0	C
FAIRFAX	VA	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	15.3	F
KING	WA	Seattle-Tacoma-Olympia, WA	1.0	C
CABELL	WV	Huntington-Ashland, WV-KY-OH	8.0	F
KENOSHA	WI	Chicago-Naperville-Michigan City, IL-IN-WI	9.3	F

(1) States were not included if all monitored counties got a grade of B or higher.

(2) The **weighted average** was derived by adding the three years of individual level data (2002-2004), multiplying the sums of each level by the assigned standard weights, i.e. 1=orange, 1.5=red, 2.0=purple, and calculating the average.

(3) Grades are assigned by weighted average as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.

Table 5: *Cleanest U.S. Cities for Short-term Particle Pollution (24-Hour $PM_{2.5}$)*[1]

Metropolitan Statistical Area	Population
Albany-Corvallis-Lebanon, OR	186,767
Amarillo, TX	236,113
Athens-Clarke County, GA	173,760
Bellingham, WA	180,167
Bend-Prineville, OR	155,903
Bismarck, ND	97,924
Bowling Green, KY	109,089
Cape Coral-Fort Myers, FL	514,295
Champaign-Urbana, IL	215,122
Cheyenne, WY	85,296
Clarksville, TN-KY	238,897
Colorado Springs, CO	576,251
Columbia, MO	151,307
Corbin-London, KY	93,559
Corpus Christi-Kingsville, TX	441,505
Decatur, IL	110,980
Deltona-Daytona Beach-Palm Coast, FL	547,675
Fargo-Wahpeton, ND-MN	205,930
Farmington, NM	124,166
Fayetteville-Springdale-Rogers, AR-MO	390,881
Flagstaff, AZ	122,754
Florence, SC	197,256
Florence-Muscle Shoals, AL	142,339
Fort Collins-Loveland, CO	268,872
Fort Smith, AR-OK	282,167
Gadsden, AL	103,250
Gainesville, FL	239,114
Greeley, CO	219,257
Hattiesburg, MS	129,967
Hot Springs, AR	92,141
Huntsville-Decatur, AL	510,088
Iowa City, IA	137,397
Jackson-Humboldt, TN	158,294
Jacksonville, FL	1,225,381
Jacksonville, NC	154,297
Lafayette-Acadiana, LA	524,163
Lakeland, FL	524,389
Lansing-East Lansing-Owosso, MI	529,054
Lewiston, ID-WA	58,654
Lubbock-Levelland, TX	280,444
Lumberton-Laurinburg, NC	162,699
Lynchburg, VA	232,538
Midland-Odessa, TX	244,832
Minneapolis-St. Paul-St. Cloud, MN-WI	3,437,464
Ocala, FL	291,322
Orlando-The Villages, FL	1,922,412
Palm Bay-Melbourne-Titusville, FL	519,387
Port St. Lucie-Fort Pierce, FL	364,772
Pueblo, CO	150,171
Rapid City, SD	117,487
Redding, CA	177,816
Reno-Sparks, NV	384,491
Rochester, MN	174,853
Saginaw-Bay City-Saginaw Township North, MI	318,542
Salinas, CA	414,629
San Luis Obispo-Paso Robles, CA	254,566
Santa Barbara-Santa Maria-Goleta, CA	401,851
Santa Fe-Espanola, NM	179,415
Sarasota-Bradenton-Venice, FL	651,862
Sioux City-Vermillion, IA-NE-SD	156,251
Sioux Falls, SD	203,324
Springfield, IL	204,745
Springfield, MO	390,986
Tampa-St. Petersburg-Clearwater, FL	2,587,967
Texarkana, TX-Texarkana, AR	132,716
Tucson, AZ	907,059
Tulsa-Bartlesville, OK	930,842
Tuscaloosa, AL	195,125
Valdosta, GA	123,718
Waterloo-Cedar Falls, IA	161,913
Wilmington, NC	303,246

(1) This list represents cities with the lowest levels of short term $PM_{2.5}$ air pollution. Monitors in these cities reported no days with unhealthful $PM_{2.5}$ levels.

Table 5a: *Top 25 Cleanest U.S. Cities for Long-term Particle Pollution (Annual $PM_{2.5}$)*[1]

2006 Rank[2]	Design Value[3]	Metropolitan Statistical Area	Population
1	4.9	Cheyenne, WY	85,296
2	5.0	Santa Fe-Espanola, NM	179,415
3	5.2	Honolulu, HI	899,593
4	5.7	Great Falls, MT	79,849
5	6.2	Tucson, AZ	907,059
6	6.3	Anchorage, AK	344,965
7	6.6	Farmington, NM	124,166
7	6.6	Bismarck, ND	97,924
9	6.7	Albuquerque, NM	781,447
10	7.3	Rapid City, SD	117,487
11	7.4	Pueblo, CO	150,171
12	7.6	Fort Collins-Loveland, CO	268,872
12	7.6	Fargo-Wahpeton, ND-MN	205,930
12	7.6	Duluth, MN-WI	275,820
15	7.8	Salinas, CA	414,629
15	7.8	Midland-Odessa, TX	244,832
17	7.9	Palm Bay-Melbourne-Titusville, FL	519,387
18	8.1	Colorado Springs, CO	576,251
18	8.1	Cape Coral-Fort Myers, FL	514,295
18	8.1	Albany-Corvallis-Lebanon, OR	186,767
21	8.2	Reno-Sparks, NV	384,491
22	8.4	Redding, CA	177,816
22	8.4	Port St. Lucie-Fort Pierce, FL	364,772
24	8.5	Santa Barbara-Santa Maria-Goleta, CA	401,851
25	8.6	San Luis Obispo-Paso Robles, CA	254,566

(1) This list represents cities with the lowest levels of annual $PM_{2.5}$ air pollution.

(2) Cities are ranked by using the lowest design value for any county within that metropolitan area.

(3) The **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 or not the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 12, 2005.

Table 5b: *Cleanest U.S. Cities for Ozone Air Pollution*[1]

Metropolitan Area	Population
Ames-Boone, IA	106,882
Bellingham, WA	180,167
Brunswick, GA	98,037
Cedar Rapids, IA	244,546
Colorado Springs, CO	576,251
Deltona-Daytona Beach-Palm Coast, FL	547,675
Des Moines-Newton-Pella, IA	582,362
Duluth, MN-WI	275,820
Eugene-Springfield, OR	331,594
Fargo-Wahpeton, ND-MN	205,930
Farmington, NM	124,166
Flagstaff, AZ	122,754
Fort Polk South-De Ridder, LA	83,639
Gadsden, AL	103,250
Gainesville, FL	239,114
Honolulu, HI	899,593
Houma-Bayou Cane-Thibodaux, LA	198,680
Lakeland, FL	524,389
Laredo, TX	219,464
Lincoln, NE	278,201
Logan, UT-ID	109,666
Medford, OR	192,992
Mount Vernon-Anacortes, WA	111,064
Naples-Marco Island, FL	296,678
Palm Bay-Melbourne-Titusville, FL	519,387
Port St. Lucie-Fort Pierce, FL	364,772
Rapid City, SD	117,487
Salem, OR	369,406
Salinas, CA	414,629
Sioux Falls, SD	203,324
Spokane, WA	435,644
Springfield, IL	204,745
Waterloo-Cedar Falls, IA	161,913
Wausau-Merrill, WI	157,969

(1) This list represents cities with no monitored ozone air pollution in unhealthful ranges.

Table 6: *Cleanest Counties for Short-term Particle Pollution (24-Hour $PM_{2.5}$)*[1]

County	ST	Metropolitan Statistical Area
BALDWIN	AL	Mobile-Daphne-Fairhope, AL
CLAY	AL	
COLBERT	AL	Florence-Muscle Shoals, AL
DE KALB	AL	
ESCAMBIA	AL	
ETOWAH	AL	Gadsden, AL
MADISON	AL	Huntsville-Decatur, AL
MORGAN	AL	Huntsville-Decatur, AL
TUSCALOOSA	AL	Tuscaloosa, AL
WALKER	AL	Birmingham-Hoover-Cullman, AL
JUNEAU	AK	
MATANUSKA-SUSITNA	AK	Anchorage, AK
COCHISE	AZ	
COCONINO	AZ	Flagstaff, AZ
GILA	AZ	
PIMA	AZ	Tucson, AZ
PINAL	AZ	Phoenix-Mesa-Scottsdale, AZ
SANTA CRUZ	AZ	
ARKANSAS	AR	
FAULKNER	AR	Little Rock-North Little Rock-Pine Bluff, AR
GARLAND	AR	Hot Springs, AR
MISSISSIPPI	AR	
PHILLIPS	AR	
POLK	AR	
POPE	AR	
SEBASTIAN	AR	Fort Smith, AR-OK
WASHINGTON	AR	Fayetteville-Springdale-Rogers, AR-MO
WHITE	AR	Little Rock-North Little Rock-Pine Bluff, AR
CALAVERAS	CA	
EL DORADO	CA	Sacramento-Arden-Arcade-Truckee, CA-NV
HUMBOLDT	CA	
MONTEREY	CA	Salinas, CA
NEVADA	CA	Sacramento-Arden-Arcade-Truckee, CA-NV
SAN LUIS OBISPO	CA	San Luis Obispo-Paso Robles, CA
SANTA BARBARA	CA	Santa Barbara-Santa Maria-Goleta, CA
SANTA CRUZ	CA	San Jose-San Francisco-Oakland, CA
SHASTA	CA	Redding, CA
ARCHULETA	CO	
BOULDER	CO	Denver-Aurora-Boulder, CO
DELTA	CO	
ELBERT	CO	Denver-Aurora-Boulder, CO
EL PASO	CO	Colorado Springs, CO
GUNNISON	CO	
LARIMER	CO	Fort Collins-Loveland, CO
PUEBLO	CO	Pueblo, CO
ROUTT	CO	
SAN MIGUEL	CO	
WELD	CO	Greeley, CO
ALACHUA	FL	Gainesville, FL
BREVARD	FL	Palm Bay-Melbourne-Titusville, FL
DUVAL	FL	Jacksonville, FL
HILLSBOROUGH	FL	Tampa-St. Petersburg-Clearwater, FL
LEE	FL	Cape Coral-Fort Myers, FL
MANATEE	FL	Sarasota-Bradenton-Venice, FL
MARION	FL	Ocala, FL
ORANGE	FL	Orlando-The Villages, FL
PALM BEACH	FL	Miami-Fort Lauderdale-Miami Beach, FL
PINELLAS	FL	Tampa-St. Petersburg-Clearwater, FL
POLK	FL	Lakeland, FL
SAINT LUCIE	FL	Port St. Lucie-Fort Pierce, FL
SANTA ROSA	FL	Pensacola-Ferry Pass-Brent, FL
SARASOTA	FL	Sarasota-Bradenton-Venice, FL
SEMINOLE	FL	Orlando-The Villages, FL
VOLUSIA	FL	Deltona-Daytona Beach-Palm Coast, FL
CLARKE	GA	Athens-Clarke County, GA
HOUSTON	GA	Macon-Warner Robins-Fort Valley, GA
LOWNDES	GA	Valdosta, GA
MAUI	HI	
BOISE	ID	Boise City-Nampa, ID
BONNER	ID	
BOUNDARY	ID	
CARIBOU	ID	
IDAHO	ID	
NEZ PERCE	ID	Lewiston, ID-WA

Table 6: (continued)

Cleanest Counties for Short-term Particle Pollution (24-Hour $PM_{2.5}$)[1]

County	ST	Metropolitan Statistical Area
ADAMS	IL	
CHAMPAIGN	IL	Champaign-Urbana, IL
DU PAGE	IL	Chicago-Naperville-Michigan City, IL-IN-WI
LA SALLE	IL	
MCHENRY	IL	Chicago-Naperville-Michigan City, IL-IN-WI
MACON	IL	Decatur, IL
RANDOLPH	IL	
ROCK ISLAND	IL	Davenport-Moline-Rock Island, IA-IL
SANGAMON	IL	Springfield, IL
SPENCER	IN	
BLACK HAWK	IA	Waterloo-Cedar Falls, IA
EMMET	IA	
JOHNSON	IA	Iowa City, IA
MONTGOMERY	IA	
POTTAWATTAMIE	IA	Omaha-Council Bluffs-Fremont, NE-IA
VAN BUREN	IA	
WOODBURY	IA	Sioux City-Vermillion, IA-NE-SD
LINN	KS	Kansas City-Overland Park-Kansas City, MO-KS
SUMNER	KS	Wichita-Winfield, KS
CARTER	KY	
CHRISTIAN	KY	Clarksville, TN-KY
KENTON	KY	Cincinnati-Middletown-Wilmington, OH-KY-IN
LAUREL	KY	Corbin-London, KY
PERRY	KY	
WARREN	KY	Bowling Green, KY
CONCORDIA	LA	
LAFAYETTE	LA	Lafayette-Acadiana, LA
SAINT BERNARD	LA	New Orleans-Metairie-Bogalusa, LA
TANGIPAHOA	LA	
CUMBERLAND	ME	Portland-Lewiston-South Portland, ME
KENNEBEC	ME	
BAY	MI	Saginaw-Bay City-Saginaw Township North, MI
GENESEE	MI	Detroit-Warren-Flint, MI
INGHAM	MI	Lansing-East Lansing-Owosso, MI
SAGINAW	MI	Saginaw-Bay City-Saginaw Township North, MI
DAKOTA	MN	Minneapolis-St. Paul-St. Cloud, MN-WI
HENNEPIN	MN	Minneapolis-St. Paul-St. Cloud, MN-WI
MILLE LACS	MN	
OLMSTED	MN	Rochester, MN
RAMSEY	MN	Minneapolis-St. Paul-St. Cloud, MN-WI
SCOTT	MN	Minneapolis-St. Paul-St. Cloud, MN-WI
STEARNS	MN	Minneapolis-St. Paul-St. Cloud, MN-WI
ADAMS	MS	
DESOTO	MS	Memphis, TN-MS-AR
FORREST	MS	Hattiesburg, MS
JONES	MS	
LEE	MS	
BOONE	MO	Columbia, MO
CEDAR	MO	
GREENE	MO	Springfield, MO
MARIES	MO	
MERCER	MO	
MONROE	MO	
ROSEBUD	MT	
SANDERS	MT	
HALL	NE	
LINCOLN	NE	
SARPY	NE	Omaha-Council Bluffs-Fremont, NE-IA
SCOTTS BLUFF	NE	
WASHINGTON	NE	Omaha-Council Bluffs-Fremont, NE-IA
WASHOE	NV	Reno-Sparks, NV
COOS	NH	
GRAFTON	NH	Claremont-Lebanon, NH-VT
CHAVES	NM	
GRANT	NM	
LEA	NM	
SANDOVAL	NM	Albuquerque, NM
SAN JUAN	NM	Farmington, NM
SANTA FE	NM	Santa Fe-Espanola, NM
CHATHAM	NC	Raleigh-Durham-Cary, NC
LENOIR	NC	
MC DOWELL	NC	
MITCHELL	NC	
MONTGOMERY	NC	

Table 6: (continued)

Cleanest Counties for Short-term Particle Pollution (24-Hour $PM_{2.5}$)[1]

County	ST	Metropolitan Statistical Area
NEW HANOVER	NC	Wilmington, NC
ONSLOW	NC	Jacksonville, NC
ORANGE	NC	Raleigh-Durham-Cary, NC
ROBESON	NC	Lumberton-Laurinburg, NC
BILLINGS	ND	
BURKE	ND	
BURLEIGH	ND	Bismarck, ND
CASS	ND	Fargo-Wahpeton, ND-MN
MC KENZIE	ND	
MERCER	ND	
ATHENS	OH	
LORAIN	OH	Cleveland-Akron-Elyria, OH
PREBLE	OH	Dayton-Springfield-Greenville, OH
CADDO	OK	
CANADIAN	OK	Oklahoma City-Shawnee, OK
CARTER	OK	
CHEROKEE	OK	
LINCOLN	OK	Oklahoma City-Shawnee, OK
MUSKOGEE	OK	
OTTAWA	OK	
PITTSBURG	OK	
SEMINOLE	OK	
TULSA	OK	Tulsa-Bartlesville, OK
COLUMBIA	OR	Portland-Vancouver-Beaverton, OR-WA
DESCHUTES	OR	Bend-Prineville, OR
LINN	OR	Albany-Corvallis-Lebanon, OR
WASCO	OR	
BEAUFORT	SC	
BERKELEY	SC	Charleston-North Charleston, SC
EDGEFIELD	SC	Augusta-Richmond County, GA-SC
FLORENCE	SC	Florence, SC
GEORGETOWN	SC	Myrtle Beach-Conway-Georgetown, SC
GREENWOOD	SC	
ORANGEBURG	SC	
BROOKINGS	SD	
BROWN	SD	
JACKSON	SD	
MEADE	SD	Rapid City, SD
MINNEHAHA	SD	Sioux Falls, SD
PENNINGTON	SD	Rapid City, SD
DYER	TN	
LAWRENCE	TN	
MADISON	TN	Jackson-Humboldt, TN
MAURY	TN	Nashville-Davidson—Murfreesboro—Columbia, TN
MONTGOMERY	TN	Clarksville, TN-KY
PUTNAM	TN	
ROANE	TN	Knoxville-Sevierville-La Follette, TN
SUMNER	TN	Nashville-Davidson—Murfreesboro—Columbia, TN
BOWIE	TX	Texarkana, TX-Texarkana, AR
BREWSTER	TX	
ECTOR	TX	Midland-Odessa, TX
ELLIS	TX	Dallas-Fort Worth, TX
JEFF DAVIS	TX	
KAUFMAN	TX	Dallas-Fort Worth, TX
LUBBOCK	TX	Lubbock-Levelland, TX
MONTGOMERY	TX	Houston-Baytown-Huntsville, TX
NUECES	TX	Corpus Christi-Kingsville, TX
POTTER	TX	Amarillo, TX
LYNCHBURG CITY	VA	Lynchburg, VA
GRAYS HARBOR	WA	
WHATCOM	WA	Bellingham, WA
ASHLAND	WI	
GRANT	WI	
MANITOWOC	WI	
OZAUKEE	WI	Milwaukee-Racine-Waukesha, WI
VILAS	WI	
CAMPBELL	WY	
CONVERSE	WY	
LARAMIE	WY	Cheyenne, WY
TETON	WY	

(1) This list represents counties with the lowest levels of short term $PM_{2.5}$ air pollution. Monitors in these counties reported no days with unhealthful $PM_{2.5}$ levels.

Table 6a: *Top 25 Cleanest Counties for Long-term Particle Pollution (Annual $PM_{2.5}$)*[1]

Rank[2]	County	State	Design Value[3]
1	CONVERSE	WY	3.7
2	ELBERT	CO	4.3
3	BILLINGS	ND	4.6
4	LARAMIE	WY	4.9
5	SANTA FE	NM	5.0
5	SANDOVAL	NM	5.0
5	MAUI	HI	5.0
5	BREWSTER	TX	5.0
9	LAKE	CA	5.1
9	SAN MIGUEL	CO	5.1
11	HONOLULU	HI	5.2
12	MC KENZIE	ND	5.3
13	JACKSON	SD	5.4
14	CASCADE	MT	5.7
15	BURKE	ND	5.9
16	ARCHULETA	CO	6.0
17	INYO	CA	6.1
18	PIMA	AZ	6.2
18	GRANT	NM	6.2
18	CAMPBELL	WY	6.2
18	HANCOCK	ME	6.2
22	ANCHORAGE	AK	6.3
22	MEADE	SD	6.3
22	COLUMBIA	OR	6.3
22	MERCER	ND	6.3

(1) This list represents counties with the lowest levels of monitored long term $PM_{2.5}$ air pollution.

(2) Counties are ranked by design value.

(3) The **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 if a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 12, 2005.

Table 6b: *Cleanest Counties for Ozone Air Pollution*[1]

County	ST	Metropolitan Statistical Area
ETOWAH	AL	Gadsden, AL
YUKON-KOYUKUK	AK	
COCHISE	AZ	
COCONINO	AZ	Flagstaff, AZ
NAVAJO	AZ	
MONTGOMERY	AR	
COLUSA	CA	
GLENN	CA	
LAKE	CA	
MARIN	CA	San Jose-San Francisco-Oakland, CA
MENDOCINO	CA	
MONTEREY	CA	Salinas, CA
NAPA	CA	San Jose-San Francisco-Oakland, CA
PLUMAS	CA	
SAN FRANCISCO	CA	San Jose-San Francisco-Oakland, CA
SAN MATEO	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
ADAMS	CO	Denver-Aurora-Boulder, CO
EL PASO	CO	Colorado Springs, CO
LA PLATA	CO	
MONTEZUMA	CO	
ALACHUA	FL	Gainesville, FL
BAKER	FL	Jacksonville, FL
BREVARD	FL	Palm Bay-Melbourne-Titusville, FL
COLLIER	FL	Naples-Marco Island, FL
COLUMBIA	FL	
HIGHLANDS	FL	
LEON	FL	Tallahassee, FL
OSCEOLA	FL	Orlando-The Villages, FL
PALM BEACH	FL	Miami-Fort Lauderdale-Miami Beach, FL
PINELLAS	FL	Tampa-St. Petersburg-Clearwater, FL
POLK	FL	Lakeland, FL
SAINT LUCIE	FL	Port St. Lucie-Fort Pierce, FL
SEMINOLE	FL	Orlando-The Villages, FL
VOLUSIA	FL	Deltona-Daytona Beach-Palm Coast, FL
GLYNN	GA	Brunswick, GA
HAWAII	HI	
HONOLULU	HI	Honolulu, HI
BUTTE	ID	
CANYON	ID	Boise City-Nampa, ID
ELMORE	ID	
ROCK ISLAND	IL	Davenport-Moline-Rock Island, IA-IL
SANGAMON	IL	Springfield, IL
BREMER	IA	Waterloo-Cedar Falls, IA
LINN	IA	Cedar Rapids, IA
MONTGOMERY	IA	
PALO ALTO	IA	
POLK	IA	Des Moines-Newton-Pella, IA
STORY	IA	Ames-Boone, IA
WARREN	IA	Des Moines-Newton-Pella, IA
LINN	KS	Kansas City-Overland Park-Kansas City, MO-KS
TREGO	KS	
TRIGG	KY	Clarksville, TN-KY
BEAUREGARD	LA	Fort Polk South-De Ridder, LA
LAFOURCHE	LA	Houma-Bayou Cane-Thibodaux, LA
ORLEANS	LA	New Orleans-Metairie-Bogalusa, LA

County	ST	Metropolitan Statistical Area
CARLTON	MN	Duluth, MN-WI
LAKE	MN	
SAINT LOUIS	MN	Duluth, MN-WI
SCOTT	MN	Minneapolis-St. Paul-St. Cloud, MN-WI
WARREN	MS	
FLATHEAD	MT	
DOUGLAS	NE	Omaha-Council Bluffs-Fremont, NE-IA
LANCASTER	NE	Lincoln, NE
DOUGLAS	NV	Sacramento-Arden-Arcade-Truckee, CA-NV
WHITE PINE	NV	
EDDY	NM	
SANDOVAL	NM	Albuquerque, NM
SAN JUAN	NM	Farmington, NM
SWAIN	NC	
BILLINGS	ND	
CASS	ND	Fargo-Wahpeton, ND-MN
DUNN	ND	
MC KENZIE	ND	
MERCER	ND	
OLIVER	ND	
DEWEY	OK	
KAY	OK	
PITTSBURG	OK	
COLUMBIA	OR	Portland-Vancouver-Beaverton, OR-WA
JACKSON	OR	Medford, OR
LANE	OR	Eugene-Springfield, OR
MARION	OR	Salem, OR
BERKELEY	SC	Charleston-North Charleston, SC
MINNEHAHA	SD	Sioux Falls, SD
PENNINGTON	SD	Rapid City, SD
BREWSTER	TX	
WEBB	TX	Laredo, TX
CACHE	UT	Logan, UT-ID
SAN JUAN	UT	
ROCKBRIDGE	VA	
CLALLAM	WA	
CLARK	WA	Portland-Vancouver-Beaverton, OR-WA
KLICKITAT	WA	
LEWIS	WA	
MASON	WA	Seattle-Tacoma-Olympia, WA
SKAGIT	WA	Mount Vernon-Anacortes, WA
SPOKANE	WA	Spokane, WA
THURSTON	WA	Seattle-Tacoma-Olympia, WA
WHATCOM	WA	Bellingham, WA
FLORENCE	WI	
MARATHON	WI	Wausau-Merrill, WI
ONEIDA	WI	
SAINT CROIX	WI	Minneapolis-St. Paul-St. Cloud, MN-WI
SAUK	WI	Madison-Baraboo, WI
VERNON	WI	
VILAS	WI	
TETON	WY	

(1) This list represents counties with no monitored ozone air pollution in unhealthful ranges.

Health Effects of Ozone and Particle Pollution

New research reported in 2005 shows air pollution is even more dangerous than we had thought—dangerous, even deadly, at levels currently considered safe in the United States.

The *American Lung Association State of the Air 2006* looks at the two most common and most hazardous air pollutants: ozone and particle pollution. Both are widespread and unhealthful at levels seen routinely in many parts of our nation. And, it turns out, both are more dangerous than we thought.

Particle pollution

Everyone has had this experience: You're sitting in traffic or driving down a highway behind a large truck with black fumes spewing from the tailpipe. You wonder just what that exhaust is doing to you. Scientists have been asking the same question for some time now. What we're learning is that those fumes contain many complicated ingredients that can do more damage to your health than you might realize.

Not only can that black plume of smoke from the tailpipe or the graying haze settling over the city make you cough and blink, but it can do much worse—it could help take months to years off of your lifespan. The evidence accumulates as the results of new research studies pour in each month. Analyses conducted over the past seven years link air pollution to shorter lives, heart disease, lung cancer, asthma attacks and serious interference with the growth and work of the lungs.

The dirty, smoky part of that stream of exhaust is made of particle pollution. Eighteen percent of the nation—53 million people—live where the air they breathe has so much particle pollution day in and day out that their health can be at risk. Twenty-two percent—64.3 million—live in areas where frequent spikes in particles lasting hours to days places their health at risk as well. But what is particle pollution? What can these particles do to your health? Who is most vulnerable? And what can we do about it?

What is Particle Pollution?

Particle pollution refers to a combination of fine solid particles and aerosols that are suspended in the air we breathe. But nothing about particle pollution is simple. First of all, the particles themselves are different sizes. Some are one-tenth the diameter of a strand of hair. Many are even tinier; some are so small they can only be seen with an electron microscope. Because of their size, you can't see the individual particles. You can only see the haze that forms when millions of particles blur the spread of sunlight. Alarmingly, you may not be able to tell when you're breathing particle pollution. Yet it is so dangerous it can shorten your life.

Because particle pollution ranges in size from the tiny to the microscopic, the differences in size make a big difference in how they affect us. Our natural defenses help us to cough or sneeze larger particles out of our bodies. But those defenses don't keep out smaller particles, those that are smaller than 10 microns (or micrometers) in diameter, or about one-seventh the diameter of a single human hair. These particles get trapped in the lungs, while the smallest are so minute that they can pass through the lungs into the blood stream, just like the essential oxygen molecules we need to survive.

Researchers categorize particles according to size, grouping them as coarse, fine and ultrafine. Coarse particles fall between 2.5 microns and 10 microns in diameter and are called $PM_{10-2.5}$. Fine particles are 2.5 microns in diameter or smaller and are called $PM_{2.5}$. Ultrafine particles are smaller than 0.1 micron in diameter[1] and are small enough to pass through the lung tissue into the blood stream, circulating like the oxygen molecules themselves. No matter what the size, particles can be harmful to your health.

Because particles are formed in so many different ways, they also can be composed of many complex compounds. Although we often think of particles as solids, not all are. Some are completely liquid; some are solids suspended in liquids. As the U.S. Environmental Protection Agency puts it, particles are really "a mixture of mixtures."[2] The mixtures differ between the eastern and western United States. For example, the eastern states have more sulfate particles than the west, largely due to the high levels of sulfur dioxide emitted by large, coal-fired power plants. By contrast, in Southern California, nitrate particles from motor vehicle exhaust form a larger proportion of the unhealthful mix.[3]

Where Does Particle Pollution Come From?

Particle pollution is so complex in part because its components come from many sources. It is generally produced through two separate processes: mechanical and chemical. Both processes can produce particles of a range of sizes, but the each procedure produces predominantly one size.

The simplest process is mechanical, which means the breaking down of bigger bits into smaller bits with the material remaining essentially the same, only becoming smaller. Mechanical processes primarily form coarse particles.[4] Dust storms, construction and demolition, mining operations, agriculture, and coal and oil combustion are among the activities that produce coarse particles. They generally are already formed as particles when they enter the air.

By contrast, chemical processes in the atmosphere create most of the tiniest fine and ultrafine particles. Combustion sources burn fuels and emit gases. These gases can simply vaporize and then condense to become a particle of the same chemical compound. Or, they can react with other gases or particles in the atmosphere to form a particle of a different chemical compound. Particles formed by this latter process come from the reaction of elemental carbon (soot), heavy metals, sulfur dioxide (SO_2), nitrogen oxides (NO_X) and volatile organic compounds with water and other compounds in the atmosphere.[5] Burning fossil fuels in factories, power plants, steel mills, smelters, diesel- and gasoline-powered motor vehicles (cars and trucks) and equipment generate a large part of the raw materials for

fine particles. So does burning wood in residential fireplaces and wood stoves and burning agricultural fields or forests.

What Can Particles Do to Your Health?

That irritating dark smoke coming out of the truck's tailpipe is probably directly emitting carbon particles and the raw ingredients for other fine particles into the air. That dark stream mixes with exhausts from other cars, trucks and heavy equipment, as well as the exhaust plumes from power plants, factories and many other sources to create the particle pollution problem we have in many places in the United States today.

In the early 1990s, dozens of community health studies from cities throughout the United States and around the world indicated that short-term increases in particle pollution were associated with adverse health effects ranging from increased respiratory symptoms to increased hospitalization and emergency room visits, to increased mortality from respiratory and cardiovascular disease.

In 1993, a landmark study appeared in the *New England Journal of Medicine,* which documented the significant risk to human life from long-term exposure to particle pollution. Called the Harvard Six City study, it looked at six small towns in the eastern United States and found clear evidence of the increased risk of premature death from exposure to the particle pollution in the most polluted city studied, compared to the cleanest.[6] Two years later, another group of researchers using the large nationwide database of personal histories from the American Cancer Society, came to similar conclusions.[7] Additional thorough reviews[8] have left no room for doubt: particles at the levels seen in the United States today are shortening lives.

Particle pollution causes a broad range of health problems. Exposure worsens asthma and causes wheezing, coughing and respiratory irritation in anyone with sensitive airways. It also triggers heart attacks, cardiac arrhythmias (irregular heartbeat) and premature death.

Because of its very small size, particle pollution gets right through the nasal passage, past the trachea and deep into the lungs. The smallest of the particles can even enter the bloodstream via the lungs.[9]

Particle pollution can damage the body in ways similar to cigarette smoking, researchers have discovered. In a 2005 review of the research on how particles cause harm, researchers found that the body responds to particles in similar ways to its response to cigarette smoke. These findings help explain why particle pollution can cause heart attacks and strokes.[10]

Study upon Study upon Study…

Studies showing the dangers of particle pollution are pouring in by the thousands. More than 2,000 peer-reviewed studies on the subject have been published since 1996, when the EPA last reviewed the standards for particle pollution. The new studies validate the research done before 1996, showing the strong relationship between particle pollution, illness, hospitalization and premature death.

Most research distinguishes exposure to particle pollution by whether the elevated levels last for a "short term" or a "long term." Short-term exposure occurs

when particle pollution levels are particularly high over a period of a few hours to a few days. Studies of year-round or long-term exposure measure air pollution and health effects over a number of years. Both types of exposure are harmful to your health.

Researchers these days are exploring possible differences in health effects of the three sizes of particles and particles from different sources, such as diesel particles from trucks and buses or sulfates from coal-fired power plants. So far, the evidence remains clear that all particles from all sources are dangerous.

Short-Term Exposure Can Be Deadly

First and foremost, short-term exposure to particle pollution can kill. Deaths can occur on the very day that particle levels are high, or within one to two months afterward. Unfortunately, particle pollution does not just make people die a few days earlier than they might otherwise, these are deaths that would not have occurred if the air were cleaner.[11] Particle pollution also diminishes lung function, causes greater use of asthma medications and increased rates of school absenteeism, emergency room visits and hospital admissions. Other adverse effects can be coughing, wheezing, cardiac arrhythmias and heart attacks. According to the findings from some of the latest studies, short-term increases in particle pollution have been linked to:

- death from respiratory and cardiovascular causes, including strokes;[12,13,14,15]
- increased numbers of heart attacks, especially among the elderly and in people with heart conditions;[16]
- inflammation of lung tissue in young, healthy adults;[17]
- increased hospitalization for cardiovascular disease, including strokes and congestive heart failure;[18,19]
- increased emergency room visits for patients suffering from acute respiratory ailments;[20,21]
- increased hospitalization for asthma among children;[22,23,24] and
- increased severity of asthma attacks in children.[25]

Year-Round Exposure

Breathing high levels of particle pollution day in and day out also can be deadly. Chronic exposure to particle pollution can shorten life by one to three years.[26] Other impacts range from premature births to serious respiratory disorders, even when the particle levels are very low.

Year-round exposure to particle pollution has also been linked to:

- increased hospitalization for asthma attacks for children living within 200 meters (218 yards) of roads with heavy truck or trailer traffic;[27]
- slowed lung function growth in children and teenagers;[28,29]

- significant damage to the small airways of the lungs;[30]
- increased risk of dying from lung cancer;[31] and
- increased risk of death from cardiovascular disease.[32]

Alarmingly, the risks may be even greater than previously thought. Earlier studies of the long-term health risks of air pollution relied on estimates of the average exposure to people in the community. New evidence from a study published in 2005 suggests that those estimates may be far too low. Tracking 23,000 residents of Los Angeles and looking at data from monitors nearest to them, researchers found that the risk of premature death from fine particle pollution may be three times higher than previously reported.[33]

Who Is at Risk?

Anyone living in an area with a high level of particle pollution is at risk (you can take a look at levels in your state in this report). People at the greatest risk from particle pollution exposure include those with lung disease such as asthma and chronic obstructive pulmonary disease (COPD), which includes chronic bronchitis and emphysema; people with sensitive airways, where exposure to particle pollution can cause wheezing, coughing and respiratory irritation; the elderly; people with heart disease; and children. Newer research has shown that diabetics are also at higher risk from particle pollution.[34]

Ozone Pollution

Remember that truck exhaust? As you stare at that dark and gritty smoke, be aware that you can't actually see all of its dangers. The dirty cloud of exhaust is a mass of particles, but hidden in the plume are the raw ingredients for the most widespread air pollutant: ozone, commonly known as smog. In major reviews published in 2005, we confirmed recent studies showing the deadly effects of this old public health nemesis.

What is Ozone?

Ozone (O_3) is an extremely reactive gas molecule composed of three oxygen atoms. It is the primary ingredient of smog air pollution and is very harmful to breathe. Ozone essentially attacks lung tissue by reacting chemically with it. It also damages crops and trees.

News about ozone can be confusing. Some days you hear that ozone levels are too high and other days that we need to prevent ozone depletion. Basically, the ozone layer found high in the upper atmosphere (the stratosphere) is beneficial because it shields us from much of the sun's ultraviolet radiation. However, ozone air pollution at ground level where we can breathe it (in the troposphere) is anything but beneficial. It causes serious health problems.

Where Does Ozone Come From?

What you see coming out of the tailpipe on that truck isn't ozone, but the raw ingredients for making ozone. Like some types of particle pollution, ozone is formed by chemical reactions in the atmosphere from those key raw ingredients that do come out of tailpipes, smokestacks and many other sources. These essential raw ingredients for ozone, nitrogen oxides (NO_X) and hydrocarbons, also called volatile organic compounds (VOCs), are produced primarily when fossil fuels like gasoline or coal are burned or when fossil fuel-based chemicals, like paints, evaporate. When they come in contact with both heat and sunlight, these molecules combine and form ozone. NO_X is emitted from power plants, motor vehicles and other sources of high-heat combustion. VOCs are emitted from motor vehicles, chemical plants, refineries, factories, gas stations, paint and other sources. The recipe for ozone is simple, and like any recipe, the ingredients must all be present and in the right proportions to make the final product.

NO_X + VOC + Heat + Sunlight = Ozone

You may have wondered why "ozone action day" warnings are sometimes followed by recommendations to avoid activities such as mowing your lawn or refilling your gas tank during daylight hours. Lawn mower exhaust and evaporating gasoline vapors turn into ozone in the heat and sun. Take away the sunlight and ozone doesn't form, so refilling your gas tank after dark is better on high ozone days. In the same way, if we reduce the chemical raw ingredients (NO_X and VOCs) in the right proportions, ozone doesn't form. Since we can't control sunlight and heat, we must reduce the chemical raw ingredients if we want to reduce ozone.

How Ozone Pollution Affects Your Health

The effects of ozone on lung health have been studied at great length using laboratory animals, clinical subjects and human populations. Researchers have found time and time again that ozone is dangerous at levels currently experienced in the United States. In 2004 and 2005, it became clear that it can be deadly as well.

The first strong evidence arrived late in 2004, when two important studies documented that short-term exposure to ozone can shorten lives. One study looked at 95 cities across the United States over a 14-year period. That study compared the impact of ozone on death patterns during several days after the ozone measurements. Even on days when ozone levels were below the current national standard, the researchers found an increased risk of premature death associated with increased levels of ozone. They estimated that over 3,700 deaths annually could be attributed to a 10-parts-per-billion increase in ozone levels.[35] Another study, published the same week, looked at 23 European cities and found similar effects on mortality from ozone exposure.[36]

Confirmation came in the summer of 2005. EPA commissioned three groups of researchers working independently to review all the research around deaths associated with short-term high levels of ozone. The three teams—at Harvard, Johns Hopkins and New York University—used different approaches and con-

ducted additional research, all published in the journal *Epidemiology*. All three studies report a small, but substantial association between daily ozone levels and increased deaths.[37] Writing a commentary on these reviews, David Bates, MD, explained how these premature deaths could occur:

"Ozone is capable of causing inflammation in the lung at lower concentrations than any other gas. Such an effect would be a hazard to anyone with heart failure and pulmonary congestion, and would worsen the function of anyone with advanced lung disease."[38]

Five groups of people are especially vulnerable to the effects of breathing ozone. They are: children, senior citizens, people who work or exercise outdoors, people with pre-existing respiratory disease (i.e., asthma or COPD) and "responders" who are otherwise healthy but have an enhanced reaction to ozone.

Ozone's effect on an individual's health can depend on many factors, including: whether they are part of a susceptible population group, how concentrated the ozone is, how rapidly they breathe and how long they are exposed to the ozone.

Many areas in the United States produce enough ground-level ozone during the summer months to cause health problems that can be felt right away. These immediate problems are:

- shortness of breath,
- chest pain when inhaling deeply,
- wheezing and coughing, and
- increased susceptibility to respiratory infections.

Exposure to ozone increases:

- risk of premature mortality,
- pulmonary inflammation,
- the risk of asthma attacks, and
- the need for medical treatment and for hospitalization of persons with asthma.[39]

Two new studies published in 2005 explored ozone's ability to reduce lung function, or the ability of the lungs to work efficiently. Each study looked at otherwise healthy groups with long exposure to ozone: outdoor postal workers in Taiwan and college freshmen who were lifelong residents of Los Angeles or the San Francisco Bay area. Both studies found that the long exposure to elevated ozone levels had decreased their lung function.[40]

Short-term exposure to ozone also has been linked to aggravation of chronic obstructive pulmonary disease (COPD).[41] Repeated inflammation due to exposure to ozone over a period of years can lead to a chronic "stiffening" of the lungs.

Inhaling ozone may affect the heart as well as the lungs. One new study linked exposures to high ozone levels for as little as one hour to a particular type of cardiac arrhythmia that itself increases the risk of premature death and stroke.[42] A

French study found that exposure to elevated ozone levels for one to two days increased the risk of heart attacks for middle-aged adults without heart disease.[43]

Focusing on Children's Health

Children may look like miniature adults, but they're not. Air pollution is especially dangerous to them because their lungs are growing and because they are so active.

Just like the arms and legs, the largest portion of a child's lungs will grow long after he or she is born. Eighty percent of their tiny air sacs develop after birth. Those sacs, called the alveoli, are where the life-sustaining transfer of oxygen to the blood takes place. The lungs and their alveoli aren't fully grown until children become adults.[44] In addition, the body's defenses that help adults fight off infections are still developing in young bodies.[45] Children have more respiratory infections than adults, which also seems to increase their susceptibility to air pollution.[46]

Furthermore, children don't behave like adults, which also affects their vulnerability. They are outside for longer periods and are usually more active when outdoors. Consequently, they inhale more polluted outdoor air than adults typically do.[47]

World Health Association, American Academy of Pediatrics Confirm Harm to Children

The effects of air pollution on children are striking. In 2004, two major analyses concluded that air pollution is especially harmful to children.

The World Health Organization (WHO) published an in-depth look at the research on children's health and air pollution. Most importantly, the scientists concluded that particle pollution caused infant deaths. In addition, they found that air pollution caused a host of harmful effects on children, including:

- short-term and long-term decreased lung function rates and that caused lower lung function levels, critical measures of how well the child will breathe throughout his or her life (due primarily to exposure to particle pollution and traffic-related pollution);
- aggravation of asthma (from exposure to particle as well as ozone pollution);
- increased prevalence and incidence of cough and bronchitis (primarily from particle pollution); and
- increased risk of upper and lower respiratory infections.[48]

The American Academy of Pediatrics published a statement on the dangers of outdoor air pollution on children's health, pointing out the special differences for children.[49] The Academy reported many of the health effects cited by the WHO study, but also focused on the sources common to far too many children. Both the WHO monograph and the Academy statement highlighted recent studies showing how children living near highly traveled highways appear to be particularly harmed by traffic-related pollution. The Academy statement highlighted the specific concern over diesel school buses, citing a pilot study that showed children

riding inside a school bus may be exposed to four times more diesel exhaust than if they were riding in a car.[50]

New Research on Prenatal Exposure to Air Pollution

Several studies published in 2005 found prenatal exposure to air pollution can harm children. A study of pregnant women in four Pennsylvania counties found an increased risk of preterm births linked to chronic exposure to high levels of air pollution during the last six weeks of pregnancy.[51] A study of three low-income neighborhoods in New York City found that infants born to nonsmoking mothers faced a possible increased risk of cancer from living in areas with elevated urban area air pollutants.[52] A third study in the Czech Republic found evidence that the mother's exposure to air pollution may even alter the immune system of the fetus.[53]

Air Pollution Linked to Asthma Attacks, New Onset of Asthma

Researchers from Yale University studied children with asthma whose mothers had tracked their symptoms on a daily basis. The study, published in the *Journal of the American Medical Association,* found that children with asthma were particularly vulnerable to ozone even at levels below EPA's current eight-hour ozone standard.[54] An accompanying editorial warned, "Air pollution is one of the most under-appreciated contributors to asthma exacerbation."[55]

A recent study suggests that year-round exposure to ozone may be associated with an increased risk of the development of asthma. While more research is needed to confirm this finding, researchers tracking 3,500 students in Southern California found an increased onset of asthma in children who were taking part in three or more outdoor activities in communities with high levels of ozone.[56]

Air Pollution Increases Risk of Underdeveloped Lungs

Another finding from the Southern California Children's Health study looked at the long-term effects of particle pollution on teenagers. Tracking 1,759 children between ages 10 and 18, researchers found that those who grew up in more polluted areas faced the increased risk of having underdeveloped lungs, which may never recover to their full capacity. The average drop in lung function was 20 percent below what was expected for the child's age, similar to the impact of growing up in a home with parents who smoked.[57]

Community health studies are pointing to less obvious, but serious, effects from year-round exposure to ozone, especially for children. Scientists followed 500 Yale University students and determined that living just four years in a region with high levels of ozone and related co-pollutants was associated with diminished lung function and frequent reports of respiratory symptoms.[58] A much larger study of 3,300 school children in Southern California found reduced lung function in girls with asthma and boys who spent more time outdoors in areas with high levels of ozone.[59]

Cleaning Up Pollution Can Reduce Risk to Children

There is also real-world evidence that reducing air pollution can help protect children. Two new studies published in 2005 added more weight to the argument.

Changes in air pollution from the reunification of Germany proved a real-life laboratory. Both East and West Germany had different levels and sources of particles. Outdoor particle levels were much higher in East Germany, where they came from factories and homes. West Germany had higher concentrations of traffic-generated particles. After reunification, emissions from the factories and homes dropped, but traffic increased. A German study explored the impact on the lungs of six-year olds from both East and West Germany. Total lung capacity improved with the lower particle levels. However, for those children living near busy roads, the increased pollution from the increased traffic kept them from benefiting from the overall cleaner air.[60]

In Switzerland, particle pollution dropped during a period in the 1990s. Researchers there tracked 9,000 children over a nine-year period, following their respiratory symptoms. After taking other factors such as family characteristics and indoor air pollution into account, the researchers noted that during the years with less pollution, the children had fewer episodes of chronic cough, bronchitis, common cold, and conjunctivitis symptoms.[61]

In this country, the 1996 Olympics in Atlanta, Georgia, remains one of the most interesting cases. Atlanta is a prime example of an urban area with a history of serious ozone problems. The determined efforts of the city to reduce traffic during the Olympics succeeded in not just reducing congestion, but in improving the health of children with asthma. Concerned with an expected traffic nightmare, the city brought in more buses, more subway cars, and encouraged ridesharing and telecommuting during the Summer Olympic Games. These measures created a prolonged period of low ozone pollution that resulted in significantly lower rates of childhood asthma events for children aged 1–16. The number of asthma acute care events (e.g., treatment and hospitalization) decreased 42 percent in the Georgia Medicaid claims files. Pediatric emergency departments also saw significant reductions, as did the Georgia Hospital Discharge Database and a health maintenance organization database. It is important to note researchers determined that weather was not the determining factor in the reduced ozone levels.[62]

Living Near Highways May Be Especially Dangerous

Back to the truck we talked about earlier. Being in heavy traffic, or living near a road, may be even more dangerous than being in other places in a community. Several studies have found that the vehicle emissions coming directly from those highways may be higher than in the community as a whole, increasing the risk of harm to people who live or work near busy roads.

In San Francisco, researchers found in 2004 an increase in bronchitis and physician-diagnosed asthma in children who lived near highways.[63] A newer study of children in 10 communities in Southern California also found that the closer children lived to a freeway, the greater their chances of having asthma.[64] Studies have found increased risk of premature death from living near a major highway or

an urban road.[65] Another study found an increase in risk of heart attacks from being in traffic, whether driving or taking public transportation.[66]

How To Protect Yourself from Ozone, Particle Pollution

To minimize your exposure to ozone and particle pollution:

- Pay attention to forecasts for high air pollution days to know when to take precautions;
- Avoid exercising near high-traffic areas;
- Avoid exercising outdoors when pollution levels are high, or substitute an activity that requires less exertion;
- Eliminate indoor smoking; and
- Reduce the use of fireplaces and wood-burning stoves.

Bottom line: Avoid doing anything that causes you to breathe very deeply on days when pollution levels are high. The more deeply you breathe, the deeper into your lungs the particles will go. Listen to local news reports about air quality and reduce your exposure. Support national, state and local efforts to clean up sources of pollution, as discussed in this report.

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Protecting the Nation from Air Pollution

A log jam of long-delayed measures finally broke loose in 2005, bringing us steps closer to much cleaner air. Unfortunately, the year also brought more efforts to protect selected polluters from cleaning up and left locomotive-sized holes in the rules for power plants and diesel engines. Then, early in 2006 came a victory in court that closed one of those big loopholes EPA had tried to open.

Blocked for years by industry lawsuits, the Environmental Protection Agency took steps in 2005 to free the states and local governments to begin new plans to clean the air in their communities. EPA proposed new limits on particle pollution and finally announced a new major program to clean up coal-fired power plants. Unfortunately, polluters and their friends in Congress and the Administration are also working to delay and diminish the impact of these steps. Several proposals would handicap or block clean up measures from some sources entirely. The American Lung Association and our allies are fighting those changes in Congress and in the courts to keep our nation's ability to fight air pollution strong.

States renewed their fight to clean up local and regional pollution

In 2004, EPA officially told each state which areas still had too much ozone and particle pollution. Those announcements set states and cities to work to determine how to meet the health-based limits, or standards, for each pollutant. In 2005, state and local officials began the long process to decide which sources of pollution to trim and by how much. State and local governments began holding community meetings and analyzing various approaches to map out a strategy to reduce local sources of pollution. These areas will have to put some clean up measures in place beginning in 2007; some areas with especially dirty air have until 2021 to complete the clean up.[1]

However, states and cities would have taken these steps years ago had industry lawsuits and EPA decisions not blocked them from getting started. As it is, state and local governments are working to reduce emissions to meet the limits on air pollution, called the national air quality standards, that EPA set in 1997. In the ensuing decade, thousands of studies have confirmed that those standards are set too high, forcing communities to continue to breathe levels of pollution that threaten human health.

Steps backward

Unfortunately, in a step the Lung Association is challenging in court, EPA changed the procedures state and local governments must follow to clean up air pollution and, in the process, weakened the protections the public expects. Under

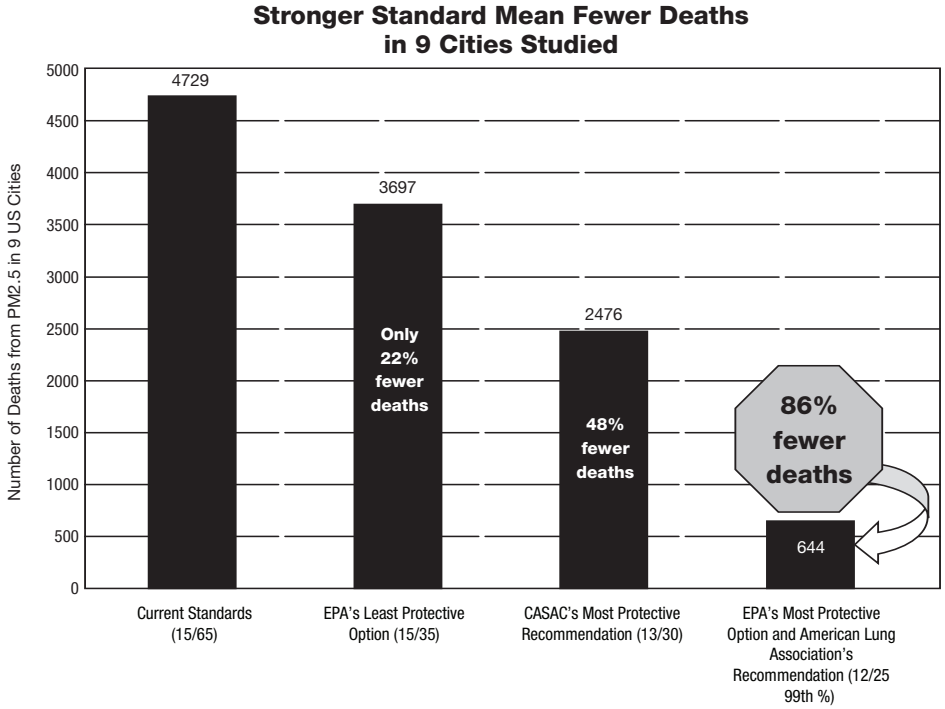
these new regulations, many cities with serious air pollution problems, like Cincinnati and Phoenix, will not have to put in place effective strategies to clean up local sources of pollution. In addition, EPA will allow these communities to have unhealthy levels of pollution for years longer than other cities. These changes violate requirements clearly spelled out in the Clean Air Act.[2] The American Lung Association and our allies are fighting these changed rules in the courts.

EPA proposed new standards that failed to adequately protect public health

In December 2005, EPA Administrator Stephen Johnson finally proposed new standards for particle pollution (particulate matter or PM). Lamentably, the proposal fails to protect the public health as required by the Clean Air Act. The standards were last reviewed and revised in 1997. The Clean Air Act requires a review of the standards to be completed every five years. Thus, EPA should have proposed new standards in 2002. The Agency finally proposed new standards because the American Lung Association and other environmental groups sued the Agency to force it to review the 1997 standards. In September 2006, EPA will announce the final standards.

Late as they are, EPA's proposals for the particle standards failed to do what the Clean Air Act requires: Protect public health with an adequate margin of safety.

EPA's Proposed Standards Are Not Protective Enough



Source: U.S. EPA, Particulate Matter Health Risk Assessment for Selected Urban Areas. Appendix A: Air Quality Assessment: The PM Data. June 2005, revised December 2005. Cities are Boston, Detroit, Los Angeles, Philadelphia, Phoenix, Pittsburgh, St. Louis, San Jose, Seattle. All options are shown in this format: (μg/m³ annual average/ μg/m³ 24-hour.) All are shown at 98th percentile, except as noted.

- EPA's proposal for fine particles ($PM_{2.5}$ and smaller) was much weaker than the proposal recommended by the American Lung Association, American Thoracic Society, American Public Health Association, American College of Cardiology, and other public health and medical groups. For the first time, EPA's proposal was also less protective than that recommended by its own independent scientific advisors and staff scientists, air pollution specialists who had explored the research for seven years.
- EPA's proposal ignored health risks from larger coarse particles ($PM_{10-2.5}$) from agriculture or mining and exempted them from control. EPA even decided to stop monitoring for these pollutants in cities smaller than 100,000 people, despite having no scientific basis to decide that these particles were safe to breathe.[3]

EPA accepted public comment on its recommendations until April 17, 2006. Under a court order, EPA Administrator Johnson is required to determine the final standard by September 27, 2006.

The ozone standard is also finally under review. EPA is in the midst of reviewing the national air standard for ozone, having last set that standard in 1997. As a result of a court settlement with the American Lung Association, EPA must propose a new standard for ozone by March 2007 and announce its final decision in December 2007.

EPA empowered the states to clean up power plants

Old coal-fired power plants are among the biggest industrial polluters, especially in the eastern half of the United States. The toll of death, disease and environmental destruction caused by coal-fired power plant pollution continues to mount. An analysis released in 2004 attributed 24,000 premature deaths *each year* to power plant pollution. In addition, the research estimates over 550,000 asthma attacks, 38,000 heart attacks and 12,000 hospital admissions are caused annually by power plant pollution.[4]

On March 10, 2005, EPA issued the Clean Air Interstate Rule, or CAIR, that will require 28 states and the District of Columbia to reduce power plant emissions by 2015. CAIR is similar to an approach EPA used successfully in 1998 that resulted in major power plants installing new pollution control measures by 2004 in 11 states, with reductions coming in parts of two additional states in 2007. The Clean Air Act gives EPA the authority to force the plants to clean up by requiring states to reduce the pollution blown across state lines.

The Clean Air Interstate Rule targets the problem of pollution blowing across state lines, especially from sources that may be hundreds of miles upwind. Under this rule, these 28 states and the District of Columbia are directing power plants and other sources to clean up emissions that contribute to ozone and particle pollution. Power plant emissions of sulfur dioxide and nitrogen oxide also contribute to pollution problems nearer to the plants, so cleaner smokestacks mean less harm to people living in a widespread geographic area.

According to EPA, CAIR will help 450 counties in the eastern United States

reduce pollution enough to meet the current national standards for ozone and particle pollution. Critically, CAIR protects the authority of the states to reduce pollution even further. EPA estimates that cleaning up these power plants and other sources will have the following important health benefits by 2015:

- prevent 17,000 deaths annually;
- prevent millions of lost work and school days from asthma attacks, and other respiratory and cardiovascular problems;
- prevent tens of thousands of non-fatal heart attacks; and
- prevent tens of thousand of hospital admissions.

EPA estimates that cleaning up these polluters will provide $85 billion to $100 billion in annual health benefits, which totals 25 times the cost of implementation. When the clean up is finished in 2015, EPA estimates that emissions of sulfur dioxide, which are major sources of particle pollution in the eastern states, will be 57 percent lower than in 2003. Emissions of nitrogen oxide, a key ingredient in ozone, are expected to be 61 percent lower than in 2003.[5]

Despite these benefits, EPA could have and should have required power plants to reduce even more pollution and to make those cuts sooner than 2015. The American Lung Association repeatedly urged EPA to use this opportunity to clean up even more pollution, faster. To ensure that EPA acted, the Lung Association, Environmental Defense and Earthjustice took legal action in March 2004, alerting EPA that the Clean Air Act requires the Agency to clean up the widespread pollution produced by power plants and other facilities.

What caused EPA to delay and limit its clean up when the public health benefits are so clear? Until late December 2004, EPA had publicly promised that it would publish the final rule before year's end, putting the requirements into effect. At the last minute, the Administration decided to delay this workable measure to try to push forward a bill (S. 131, the Administration's so-called "Clear Skies" bill) favored by corporate polluters. S. 131 weakens the Clean Air Act in many significant ways (see description below). On March 9, 2005, a bipartisan

Does cleaning up power plants really help cut pollution?

Yes! Recent cuts resulted in more than 5 times the annual drop in ozone levels each year than before, announced EPA last year. In 1998, EPA required 13 eastern states to greatly reduce the tons of nitrogen oxides they spread across their borders. EPA examined what happened to ozone levels between 2002 and 2004, when power plants had installed the required equipment in eleven of the 13 states. In a study that controlled for changes in ozone levels due to weather, EPA found that before these measures, ozone levels dropped about one percent per year in most states. After 2002, ozone levels were dropping by about 5 percent per year on average.

Source: US EPA. Evaluating Ozone Control Programs in the Eastern United States: Focus on the NOx Budget Trading Program, 2004. August 2005.

group of senators defeated the bill in committee. However, the Administration still supports S. 131 and, according to EPA, still "remains committed to working with Congress to pass legislation."[6]

EPA expanded its loopholes for industrial pollution

In 2005, EPA announced another gutting of Clean Air Act rules for polluting industries, making public policy out of an industry excuse the Agency had fought in court in 2002. Then in February 2006, the U.S. Department of Justice, the federal government's legal arm, announced that it was moving away from enforcing the law against the dirtiest of the industrial polluters, coal-fired power plants.[7] However, in March 2006, EPA's plans hit a powerful wall—in the decision of the U.S. Court of Appeals that told the agency it could not rewrite clear language in the Clean Air Act.

EPA's rollbacks in this arena began formally in 2003 when EPA took the first two major steps that cut the legs out from under an important enforcement provision of the Clean Air Act, called New Source Review (NSR). NSR is a process designed to ensure that communities with unhealthful levels of air pollution don't get more polluted when a new source of pollution comes to the community—like a new industrial facility or an existing facility that is modified in ways that enable it to emit more pollution.

Back in 1999, EPA charged that many electricity-generating utilities had failed to comply with the NSR requirements because they increased emissions of hazardous pollutants at their coal-fired plants without taking the required steps to clean them up. EPA took dozens of these plants to court and began enforcement action against others. As a result of enforcing the law, several utilities began cleaning up some of the dirtiest plants in the nation.

Then in 2002 and 2003, the rules changed. In two sweeping new regulations, EPA rewrote the NSR provisions, providing huge loopholes to industry that allow polluters to significantly increase pollution from existing plants without having to clean up the pollution. These are the some of the changes EPA made:

- Plants will be allowed to "cherry-pick" two years of the last 10 to serve as their baseline for deciding if they need to clean up. Plants that will increase more than one pollutant now can avoid having to reduce the rest their pollutants if they clean up just one of them.
- EPA severely limited the actions state and local governments can take to stop transported pollution. This change would prohibit states from attacking the problem of ozone blown into their area from upwind sources, as the New England and Mid-Atlantic states did in the mid-1990s, which set the stage for the first strong rules to clean up power plants in the late 1990s.
- Under possibly the most damaging set of changes, EPA greatly expanded the list of activities defined as "routine maintenance," which were already exempted from requiring clean up. EPA redefined "routine maintenance" to mean any project that costs less than 20 percent of the replacement cost of the entire plant, no matter how much additional pollution it creates. So now,

no matter what changes are made, or how much pollution increases, EPA will deem the changes to be "routine maintenance" as long as they cost less than 20 percent of the plant's value. Given that large plants may be worth billions, a company could reconstruct entire wings of their buildings and still have the work considered "routine maintenance." By basing this definition on the cost of the plant rather than on how much pollution is created, the new definition effectively exempts plants from having to install or upgrade their emissions reduction equipment.

In 2005, two big actions further complicated efforts to fight these rollbacks as legal actions continue:

- In June, the District Court of the District of Columbia dismissed key industry arguments, while upholding others. The Court rejected industry arguments that only if they increase their capacity to pollute should they face new source review. The Court said increases in actual pollution—regardless of increases to their production capacity—trigger new source review. Unfortunately, the Court did allow the change that gave industry the opportunity to "cherry pick" the worst two years of the last decade to compare their emissions against when evaluating pollution production.

- In October, EPA announced yet more rollbacks, based on arguments that, ironically, the Agency had rejected when the electric utility industry made the same claims in court three years earlier. Despite its own legal counsel's opposition,[8] EPA threw in the towel, and applied this argument to all NSR cases, further weakening each.[9] EPA's decision will allow electric utilities to increase the annual amount of pollution they emit without having to install new pollution control measures. EPA would require new clean up equipment only if the plants produced more pollution per hour, regardless of how much total pollution they produced. EPA's own lawyers argued against this argument when industry had made it originally in 2002.[10]

If you live in an area with unhealthy air quality, and are downwind from an old coal-fired power plant, the changes to NSR mean that plant can continue to pollute the air you and your family breathe for decades. With EPA's changes, polluters are allowed to keep polluting your air at the same rate for 10 years past the time they made their last upgrade, and they could increase their pollution—all under the "watchful" eye of EPA.

In response to EPA's crippling changes to NSR, the American Lung Association and six environmental groups sued the Agency in 2003. In addition, the attorneys general of 14 states and the District of Columbia also sued to return the teeth to the NSR process. The Lung Association will continue to fight to restore these protections, despite the Department of Justice's decision to no longer enforce NSR cases against electric utilities. As reported in the media in mid-February 2006, the Administration has shifted its efforts away from this industry, clearly the largest industrial source of air pollution, and toward other industries.[11]

Our legal challenges resulted in a decision by the U.S. Court of Appeals for

the District of Columbia in March 2006 that told EPA that one of the most egregious rule changes was, in fact, illegal. The Court overturned EPA's proposal to broadly define and exempt activities broadly defined as "routine maintenance" from having to comply with the NSR provisions. The Court ruled that Congress clearly meant that NSR apply to any modification that increases pollution, the position that the Lung Association and our allies had argued.[12]

If it is fully and properly enforced, the existing Clean Air Act will require major air pollution reductions from power plants. If Congress considers legislation to require further reductions, the American Lung Association supports an approach that curbs emissions of all the major power plant pollutants. The Clean Power Act (S. 150), introduced by Sens. James Jeffords (I-VT), Susan Collins (R-ME) and Joseph Lieberman (D-CT) takes just such an approach. S. 150 preserves key Clean Air Act provisions, but targets levels of power plant pollutants that must be reduced. It provides a coordinated approach for all four major power plant pollutants—sulfur dioxide, nitrogen oxides, mercury and carbon dioxide—within six years. These components of the legislation would ensure that power plants become cleaner and local air quality is protected.

Pressure continues to weaken the Clean Air Act

Unfortunately, the Clear Skies Initiative (S. 131) remains the focus of the Administration's plan for power plants. Congressional debate on this proposal makes the Clean Air Act more vulnerable than at any time since 1990. Although a bipartisan group of senators stopped the Clear Skies bill in committee in its first attempt at passage, the Administration and the bill's sponsors are committed to getting it enacted into law.

This Administration proposal purports to cut pollution from power plants but, in reality, would be less protective than enforcing the existing Clean Air Act, delaying and reducing cuts in sulfur dioxide, nitrogen oxides and mercury pollution. Introduced on behalf of the Administration by Sen. Jim Inhofe (R-OK), S. 131 would roll back existing requirements while permitting more pollution to continue for decades longer. Specific evidence that the Administration proposal allows more pollution than current requirements of the Clean Air Act are found in comparing the two approaches, using EPA's own internal assessments:[13]

Current law under the Clean Air Act requires deep reductions in power plants' sulfur and nitrogen emissions within this decade in order to meet public health standards by 2010.

The Administration's weaker air plan (S. 131) allows utilities and refineries to postpone installing pollution control measures for a decade or longer, allowing unhealthful levels of ozone and particle pollution to continue until 2022, denying tens of millions of people healthy air. In addition, this proposal repeals requirements to clean up pollution for utilities, industrial sources and transportation sources that Congress adopted in 1990.

The bill allows much more pollution to continue for much longer than the Clean Air Act by allowing:

- Utilities to produce twice as much sulfur dioxide (SO_2) for nearly a decade

longer (2010-2017); one-and-a-half times more SO_2 in 2018 and after. Much of the particle pollution in the Eastern United States comes from these emissions.

- Utilities to produce more than one and a half times as much nitrogen oxides (NO_X) for nearly a decade longer (2010-2017); one-third more NO_X in 2018 and after. NO_X helps make ozone in the atmosphere.
- Full pollution reductions to be further delayed—until after 2025 according to EPA—due to emissions "banking."

The bill also repeals key provisions of the Clean Air Act:

- No longer would local governments be able to require state-of-the-art pollution controls in new plants of any type or in any older plants that were increasing their pollution when they rebuild or expand their facilities.
- No longer could states located downwind of other states and suffering from the pollution created by power plants in those states take legal action to protect their citizens. Under the Clean Air Act, states can take legal action to effectively require those plants to reduce pollution. Revoking that provision would remove the chief tool the Northeast states used effectively to tackle pollution from Midwest and southern power plants.
- Even our national parks and wilderness areas would be threatened by more pollution under the Administration proposal. It would repeal clean up requirements for existing sources, while weakening Clean Air Act safeguards built in for these protected lands.

Weaker requirements, more pollution, more loopholes for polluters, tying the hands of states to clean up pollution—all reasons that the American Lung Association opposes S. 131. Strict enforcement of the Clean Air Act itself has repeatedly proven to be the way to reduce power plant emissions successfully.

The Clean Air Act works—Tell Congress & EPA to use it

It's hard to remember now what the air was like in the 1960s. Pollution streamed from factories and cars; heavy clouds of smog settled over many American cities. Office workers tell stories of taking an extra white shirt to work to replace the one they wore that grew dirty from soot during the day. In New York City as late as 1966, over 150 people died following a Thanksgiving "killer fog," felled simply by breathing the city's noxious air.[14]

That smoggy scene began to change with the passage of a landmark public health law, the 1970 Amendments to the Clean Air Act. Prior laws, including the original Clean Air Act passed in 1967, had not been strong enough or comprehensive enough to get polluters to clean up the air pollution sources that affected communities everywhere. Reinforced with critical amendments in 1977 and 1990, the Clean Air Act has proven to be a powerful and effective tool to reduce pollution.

Thanks to this law, we began to clean up factories, cars and gasoline. Polluters could no longer dump toxic clouds into the air; they had to make sure the air com-

ing out of their plants met national standards, based on their impact on public health. Car makers developed cleaner cars that could run without streaming uncontrolled, noxious fumes down the highways. The skies that once darkened daily with smog and soot now were cleaner in much of the nation.[15] Widespread problems, like airborne lead, have virtually vanished; they are now limited to tiny pockets around specific sources. Thanks to the Clean Air Act provisions requiring a regular, thorough review of the current research and health-based standards, emerging threats, like fine particle pollution, can now be better targeted for clean up.

The Act has not only been effective in reducing pollution, it has been cost-effective as well. The Act itself requires that EPA periodically review and report on the effectiveness of the law, including the costs and benefits of implementation.[16] When EPA finished its review of the first 20 years of Clean Air Act implementation in 1999, the Agency calculated that the public health and environmental benefits were 42 times greater than the costs.[17] The White House Office of Management and Budget (OMB) also annually reviews these costs and benefits. In its most recent report, OMB found that the benefits of enforcement of the nation's clean air laws from 1994 to 2004 greatly exceeded the costs by anywhere from nearly 3-1 to nearly 13-1.[18] In 2005, the National Research Council declared: "Cost-benefit analyses have generally concluded that the economic value of the benefits to public health and welfare have equaled or exceeded the cost of implementation."[19]

Clean up of diesel locomotives, marine engines overdue

In 2004, the EPA made a strong public commitment to propose protective emission standards for locomotive and marine diesel engines by the middle of 2005 and to take final action by the middle of 2006. As of April 28, 2006, EPA has failed to publish its proposal.[20]

In 2000, EPA finalized regulations to clean up highway diesel trucks, buses and diesel fuel. This regulation was followed, in 2004, by new rules to clean up heavy equipment and construction and agricultural diesel engines and their fuel. This rulemaking also cleaned up the diesel fuel for locomotive and marine diesel engines. However, EPA postponed new emission standards for locomotives and marine sources, leaving a large diesel loophole

EPA projects that without strong federal emission standards by 2030 marine diesel engines and locomotives will account for more than one-fourth of the national mobile source emissions inventory of smog-forming oxides of nitrogen and nearly one-half of the national mobile source emissions inventory of diesel particulate pollution.[21] State and local air pollution officials estimate that these emissions will cause over 4,000 premature deaths each year.[22]

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[1] 69 Fed. Reg. 23951 (April 30, 2004), 69 Fed. Reg. 23858 (April 30, 2004).
[2] 69 Fed. Reg. 23951 (April 30, 2004), 69 Fed. Reg. 23858 (April 30, 2004).
[3] American Lung Association, et al. Comments to the Record, April 17, 2006.
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[9] 70 FR 61081-01, 2005 WL 2662069 (F.R.) (October 20, 2005).
[10] 67 Federal Register. at 80205 (Dec. 31, 2002).
[11] Inside EPA, February 15, 2006.
[12] State of New York, et al v. Environmental Protection Agency. U.S. Court of Appeals for the District of Columbia Circuit, March 17, 2006.
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[18] Office of Management and Budget. *Validating Regulatory Analysis: 2005 Report to Congress on the Costs and Benefits of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities.* 2005.
[19] National Research Council, National Academies. *Air Quality Management in the United States.* 2004.
[20] 69 Federal Register 39153, www.epa.gov/otaq/url-fr/fr29jn04.pdf.
[21] 69 Federal Register 39153, www.epa.gov/otaq/url-fr/fr29jn04.pdf.
[22] State and Territorial Air Pollution Program Administrators and Association of Local Air Pollution Control Officials. *Danger in Motion: It's Time to Clean Up Trains and Boats,* February 2006.

Conclusion

In its 35-year history, the Clean Air Act has proven its worth many times over. Thanks to the protections written into that law, we have reduced the burden of air pollution on those people most at risk. The air is cleaner than it was when the Act was first written in 1970.

In fact, things have improved during the period we examine here. Between 2002 and 2004, we had many fewer days with unhealthy air. Some of those days were cleaner because the weather kept ozone from forming, but many of the days were cleaner because of measures put in place beginning in 1998 to clean up some pollution the dirty power plants.

However, cleaner air is not clean enough. Documented in the *American Lung Association State of the Air 2006* report is strong evidence that dangerously unhealthful air is still an unfortunate reality for people living in much of the nation. We must do more to reach the day when the air is consistently safe for all Americans to breathe.

The American Lung Association encourages everyone to take individual steps to combat air pollution and to support national, state and local efforts to clean the air. Reduce your driving by combining trips, walking, biking or carpooling. Turn off your lights and use power-saving appliances to keep electric power production down. Don't burn wood or trash. These simple things can make a difference as we join forces to curb air pollution.

But your actions alone aren't enough. Let political leaders in your city, county and state know you want cleaner air. Many communities are developing plans to reach national standards for ozone and particle pollution. Let local and state officials know you support strong measures to clean up the biggest polluters, especially coal-fired power plants and dirty diesel.

Right now, we need your help to tell EPA to clean up these big polluters. EPA promised to issue rules to get diesel boats and locomotives cleaned up, just like the newer trucks and buses coming into service this year. Tell EPA not to leave these big polluters running through our towns and smelling up our harbors and ports. They can and should be cleaned up as soon as possible. Log on to **www.lungusa.org** to send them that message.

Meanwhile, the American Lung Association continues to fight dirty power plants and other big polluters in the courts and with the Administration, Congress, and the federal, state, and local government. You, too, can join the fight by contacting your local American Lung Association at 1-800-LUNG USA.

Over 150 million people live in areas of the United States where dirty air is a danger to public health. At risk are our children, our parents, our families, our neighbors and our friends. Too many people remain endangered and there is too much we can do to protect them to turn back the clean air clock now. The

American Lung Association pledges to continue fighting for clean air for everyone.In its 35-year history, the Clean Air Act has proven its worth many times over. Thanks to the protections written into that law, we have reduced the burden of air pollution on those people most at risk. The air is cleaner than it was when the Act was first written in 1970.

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Notes for all state data tables

(1) **Total Population** is based on 2004 U.S. Census.
(2) Those **18 & under and 65 & over** are vulnerable to ozone and PM 2.5. They should not be used as population denominators for disease estimates.
(4) **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2004 based on national rates (NHIS) applied to county population estimates (U.S. Census).
(5) **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2004 based on state rates (BRFSS) applied to county population estimates (U.S. Census).
(6) **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed within 2004 based on national rates (NHIS) applied to county population estimates (U.S. Census).
(7) **Emphysema** estimates are for adults 18 and over who have been diagnosed within their lifetime based on national rates (NHIS) applied to county population estimates (U.S. Census).
(8) **CV disease** estimates are based on American Heart Association estimates of cardiovascular disease applied to county populations.
(9) **Diabetes** estimates are for adults 18 and over who have been diagnosed within their lifetime based on national rates (NHIS) applied to county population estimates (U.S. Census).
(10) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

ALABAMA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BALDWIN	156,701	35,585	25,328	3,014	10,574	5,277	2,325	43,740	9,455
CLAY	14,092	3,101	2,437	263	964	484	219	4,094	881
COLBERT	54,824	12,337	8,588	1,045	3,723	1,854	812	15,478	3,327
DE KALB	66,935	16,056	9,281	1,360	4,389	2,168	900	17,519	3,729
ELMORE	71,944	17,490	7,850	1,481	4,627	2,251	850	17,168	3,646
ESCAMBIA	38,336	8,849	5,358	750	2,549	1,259	524	10,170	2,174
ETOWAH	103,250	23,712	16,211	2,008	6,949	3,462	1,515	28,841	6,189
HOUSTON	92,947	23,035	12,849	1,951	6,062	2,997	1,257	24,338	5,211
JACKSON	53,821	12,263	7,810	1,039	3,624	1,795	764	14,781	3,163
JEFFERSON	658,495	158,291	88,434	13,407	43,214	21,304	8,779	172,546	36,598
LAWRENCE	34,418	8,131	4,328	689	2,269	1,114	449	8,878	1,892
LIMESTONE	69,387	16,378	8,001	1,387	4,532	2,211	856	17,244	3,649
MADISON	293,072	71,108	34,497	6,023	19,029	9,303	3,646	72,807	15,487
MOBILE	400,526	105,827	48,697	8,964	25,367	12,450	5,000	99,099	21,054
MONTGOMERY	222,559	56,866	26,219	4,817	14,152	6,922	2,710	54,305	11,464
MORGAN	113,211	27,402	14,658	2,321	7,427	3,655	1,495	29,419	6,273
RUSSELL	49,262	12,572	6,680	1,065	3,177	1,569	655	12,771	2,717
SHELBY	165,677	41,926	14,426	3,551	10,511	5,062	1,809	37,849	8,004
SUMTER	14,141	3,820	1,990	324	889	440	185	3,587	761
TALLADEGA	80,277	19,254	10,753	1,631	5,286	2,606	1,077	21,041	4,498
TUSCALOOSA	167,104	37,884	18,588	3,209	10,908	5,300	1,976	40,682	8,463
WALKER	70,005	15,917	10,622	1,348	4,720	2,345	1,013	19,436	4,162
TOTALS	**2,990,984**	**727,804**	**383,605**	**61,647**	**194,942**	**95,828**	**38,816**	**765,793**	**162,797**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Alabama
3125 Independence Drive, Suite 325
Birmingham, AL 35209-4177
(205) 933-8821 www.lungusa.org/alabama

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BALDWIN	1	0	0	0.3	B
CLAY	4	0	0	1.3	C
COLBERT	4	0	0	1.3	C
DE KALB	DNC	DNC	DNC	DNC	DNC
ELMORE	2	0	0	0.7	B
ESCAMBIA	DNC	DNC	DNC	DNC	DNC
ETOWAH	0	0	0	0.0	A
HOUSTON	DNC	DNC	DNC	DNC	DNC
JACKSON	*	*	*	*	*
JEFFERSON	16	1	0	5.8	F
LAWRENCE	2	0	0	0.7	B
LIMESTONE	*	*	*	*	*
MADISON	3	0	0	1.0	C
MOBILE	5	0	0	1.7	C
MONTGOMERY	3	0	0	1.0	C
MORGAN	5	0	0	1.7	C
RUSSELL	*	*	*	*	*
SHELBY	15	1	0	5.5	F
SUMTER	1	0	0	0.3	B
TALLADEGA	*	*	*	*	*
TUSCALOOSA	2	0	0	0.7	B
WALKER	*	*	*	*	*

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BALDWIN	0	0	0	0.0	A	11.3	PASS
CLAY	0	0	0	0.0	A	13.2	PASS
COLBERT	0	0	0	0.0	A	12.5	PASS
DE KALB	0	0	0	0.0	A	14.5	PASS
ELMORE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ESCAMBIA	0	0	0	0.0	A	12.4	PASS
ETOWAH	0	0	0	0.0	A	14.5	PASS
HOUSTON	2	0	0	0.7	B	*	INC
JACKSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JEFFERSON	26	0	0	8.7	F	17.5	FAIL
LAWRENCE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LIMESTONE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MADISON	0	0	0	0.0	A	13.7	PASS
MOBILE	1	1	1	1.5	C	12.6	PASS
MONTGOMERY	2	0	0	0.7	B	14.1	PASS
MORGAN	0	0	0	0.0	A	13.0	PASS
RUSSELL	3	0	0	1.0	C	15.6	FAIL
SHELBY	1	0	0	0.3	B	14.1	PASS
SUMTER	1	0	0	0.3	B	11.8	PASS
TALLADEGA	2	0	0	0.7	B	14.5	PASS
TUSCALOOSA	0	0	0	0.0	A	*	INC
WALKER	0	0	0	0.0	A	*	INC

Ozone
- Baldwin, Elmore, and Tuscaloosa Counties each improved their grades from a C to a B.
- Etowah and Colbert Counties now have enough data to receive a grade.
- Madison County s grade dropped from a B to a C.
- Jackson County and Talladega County now have ozone monitors, but not enough data to grade.

PM
- Madison County's grade improved from a B to an A.
- The grades for Mobile and Russell Counties dropped from a B to a C.
- Walker County now has enough data to receive a grade.
- Barbour County no longer has PM monitors.
- Dekalb, Etowah, and Shelby Counties now have sufficient data to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

ALASKA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ANCHORAGE	272,687	77,211	16,554	6,540	17,639	7,838	2,571	56,680	11,844
FAIRBANKS NORTH STAR	85,930	25,131	4,574	2,129	5,515	2,385	735	16,579	3,433
JUNEAU	31,118	7,920	2,161	671	2,078	957	336	7,223	1,534
MATANUSKA-SUSITNA	72,278	20,165	4,893	1,708	4,683	2,123	729	15,678	3,319
SKAGWAY-HOONAH-ANGOON	3,136	687	288	58	217	105	40	836	180
YUKON-KOYUKUK	6,334	2,047	494	173	383	179	66	1,366	293
TOTALS	**471,483**	**133,161**	**28,964**	**11,279**	**30,515**	**13,587**	**4,477**	**98,362**	**20,603**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Alaska
500 West International Airport Road, #A
Anchorage, AK 99518-1105
(907) 276-5864
www.aklung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ANCHORAGE	DNC	DNC	DNC	DNC	DNC
FAIRBANKS NORTH STAR	DNC	DNC	DNC	DNC	DNC
JUNEAU	DNC	DNC	DNC	DNC	DNC
MATANUSKA-SUSITNA	DNC	DNC	DNC	DNC	DNC
SKAGWAY-HOONAH-ANGOONDNC	DNC	DNC	DNC	DNC	DNC
YUKON-KOYUKUK	0	0	0	0.0	A

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ANCHORAGE	1	0	0	0.3	B	6.3	PASS
FAIRBANKS NORTH STAR	6	5	2	5.8	F	11.6	PASS
JUNEAU	0	0	0	0.0	A	*	INC
MATANUSKA-SUSITNA	0	0	0	0.0	A	*	INC
SKAGWAY-HOONAH-ANGOON	*	*	*	*	*	*	INC
YUKON-KOYUKUK	*	*	*	*	*	*	INC

Ozone
- There were no changes in grades or monitoring.

PM
- Anchorage County's grade dropped from an A to a B.
- Fairbanks North Star County's grade dropped from a D to an F.
- Yukon-Koyukuk County does not have enough date to receive a grade.
- Fairbanks North Star County now has sufficient data to grade their annual levels.
- Matanuska-Susitna County does not have sufficient data to grade their annual levels.
- Ketchikan Gateway County no longer has PM monitors.
- Skagway-Hoonah-Angoon County now has PM monitors, but not enough data to grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

ARIZONA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
COCHISE	124,013	31,971	19,628	2,708	6,726	4,026	1,791	33,756	7,265
COCONINO	122,754	34,134	9,047	2,891	6,069	3,562	1,205	25,951	5,423
GILA	51,422	12,794	10,637	1,084	2,924	1,776	888	15,967	3,477
MARICOPA	3,501,001	968,268	390,046	82,012	178,520	104,434	39,818	806,063	168,710
NAVAJO	106,455	35,239	11,465	2,985	5,046	2,976	1,169	23,207	4,932
PIMA	907,059	224,488	129,086	19,014	49,143	29,093	12,176	235,829	50,135
PINAL	214,359	54,332	31,361	4,602	11,555	6,804	2,860	55,153	11,687
SANTA CRUZ	40,784	13,249	4,647	1,122	1,962	1,167	473	9,295	1,986
YAVAPAI	190,628	39,398	41,336	3,337	11,428	6,910	3,426	61,816	13,404
YUMA	176,083	51,992	30,099	4,404	9,184	5,396	2,458	45,328	9,683
TOTALS	**5,434,558**	**1,465,865**	**677,352**	**124,159**	**282,557**	**166,144**	**66,264**	**1,312,365**	**276,702**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Arizona
102 West McDowell Road
Phoenix, AZ 85003-1299
(602) 258-7505 www.lungusa.org/arizonanewmexico

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
COCHISE	0	0	0	0.0	A
COCONINO	0	0	0	0.0	A
GILA	8	0	0	2.7	D
MARICOPA	25	1	0	8.8	F
NAVAJO	0	0	0	0.0	A
PIMA	2	0	0	0.7	B
PINAL	5	0	0	1.7	C
SANTA CRUZ	DNC	DNC	DNC	DNC	DNC
YAVAPAI	4	0	0	1.3	C
YUMA	*	*	*	*	*

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
COCHISE	0	0	0	0.0	A	7.0	PASS
COCONINO	0	0	0	0.0	A	*	INC
GILA	0	0	0	0.0	A	9.5	PASS
MARICOPA	5	1	0	2.2	D	10.9	PASS
NAVAJO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PIMA	0	0	0	0.0	A	6.2	PASS
PINAL	0	0	0	0.0	A	8.0	PASS
SANTA CRUZ	0	0	0	0.0	A	11.6	PASS
YAVAPAI	DNC	DNC	DNC	DNC	DNC	DNC	DNC
YUMA	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Gila and Navajo Counties now have enough data to receive a grade.

PM
- Maricopa County's grade improved from an F to a D.
- Cochise and Gila Counties now have sufficient data to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

ARKANSAS

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ARKANSAS	20,130	4,859	3,154	412	1,136	670	297	5,659	1,213
ASHLEY	23,687	6,008	3,335	509	1,306	764	325	6,298	1,346
CRAIGHEAD	86,191	20,695	10,154	1,753	4,739	2,710	1,040	20,972	4,407
CRITTENDEN	51,488	15,570	4,897	1,319	2,602	1,485	556	11,414	2,406
FAULKNER	95,113	23,008	9,194	1,949	5,146	2,896	1,017	21,135	4,423
GARLAND	92,141	19,413	18,958	1,644	5,469	3,277	1,582	28,863	6,222
JEFFERSON	82,656	20,808	10,662	1,762	4,529	2,624	1,069	21,012	4,473
MARION	16,383	3,255	3,358	276	995	599	292	5,338	1,159
MILLER	42,468	10,774	5,630	913	2,322	1,347	554	10,867	2,305
MISSISSIPPI	48,485	14,126	6,001	1,196	2,519	1,461	599	11,763	2,503
MONTGOMERY	9,282	1,998	1,878	169	549	329	159	2,907	628
NEWTON	8,484	1,858	1,359	157	496	294	132	2,502	540
PHILLIPS	24,309	7,577	3,387	642	1,240	728	318	6,047	1,301
POLK	20,092	4,852	3,549	411	1,138	676	312	5,812	1,249
POPE	55,933	13,424	7,230	1,137	3,097	1,786	715	14,062	2,992
PULASKI	365,913	92,276	42,885	7,816	19,978	11,517	4,551	91,354	19,321
SEBASTIAN	117,786	30,395	15,088	2,574	6,401	3,709	1,513	29,837	6,329
UNION	44,595	11,011	6,910	933	2,490	1,464	643	12,253	2,625
WASHINGTON	174,077	43,961	16,665	3,723	9,296	5,235	1,846	38,567	8,028
WHITE	70,658	16,566	9,671	1,403	3,944	2,278	926	18,063	3,840
TOTALS	**1,449,871**	**362,434**	**183,965**	**30,698**	**79,392**	**45,849**	**18,446**	**364,725**	**77,310**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Arkansas
211 Natural Resources Drive
Little Rock, AR 72205-1539
(501) 224-5864 www.lungusa.org/arkansas

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ARKANSAS	DNC	DNC	DNC	DNC	DNC
ASHLEY	DNC	DNC	DNC	DNC	DNC
CRAIGHEAD	DNC	DNC	DNC	DNC	DNC
CRITTENDEN	8	3	0	4.2	F
FAULKNER	DNC	DNC	DNC	DNC	DNC
GARLAND	DNC	DNC	DNC	DNC	DNC
JEFFERSON	DNC	DNC	DNC	DNC	DNC
MARION	DNC	DNC	DNC	DNC	DNC
MILLER	DNC	DNC	DNC	DNC	DNC
MISSISSIPPI	DNC	DNC	DNC	DNC	DNC
MONTGOMERY	0	0	0	0.0	A
NEWTON	6	0	0	2.0	C
PHILLIPS	DNC	DNC	DNC	DNC	DNC
POLK	*	*	*	*	*
POPE	DNC	DNC	DNC	DNC	DNC
PULASKI	11	0	0	3.7	F
SEBASTIAN	DNC	DNC	DNC	DNC	DNC
UNION	DNC	DNC	DNC	DNC	DNC
WASHINGTON	DNC	DNC	DNC	DNC	DNC
WHITE	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ARKANSAS	0	0	0	0.0	A	11.7	PASS
ASHLEY	1	0	0	0.3	B	11.0	PASS
CRAIGHEAD	*	*	*	*	*	*	INC
CRITTENDEN	1	0	0	0.3	B	12.0	PASS
FAULKNER	0	0	0	0.0	A	12.2	PASS
GARLAND	0	0	0	0.0	A	*	INC
JEFFERSON	*	*	*	*	*	*	INC
MARION	*	*	*	*	*	*	INC
MILLER	*	*	*	*	*	*	INC
MISSISSIPPI	0	0	0	0.0	A	11.6	PASS
MONTGOMERY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
NEWTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PHILLIPS	0	0	0	0.0	A	11.4	PASS
POLK	0	0	0	0.0	A	10.6	PASS
POPE	0	0	0	0.0	A	11.7	PASS
PULASKI	1	0	0	0.3	B	13.2	PASS
SEBASTIAN	0	0	0	0.0	A	11.7	PASS
UNION	1	0	0	0.3	B	11.9	PASS
WASHINGTON	0	0	0	0.0	A	*	INC
WHITE	0	0	0	0.0	A	11.4	PASS

Ozone
- Polk County now has ozone monitors, but not enough data to grade.

PM
- Craighead, Jefferson, Marion and Miller Counties do not have enough data to receive a grade.
- Pulaski County's grade improved from a C to a B.
- Craighead County does not have sufficient data to grade their annual levels.
- Union County now has sufficient data to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

CALIFORNIA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ALAMEDA	1,455,235	361,873	151,345	30,651	84,413	45,213	16,966	349,064	73,249
AMADOR	37,837	6,871	6,777	582	2,388	1,366	617	11,610	2,498
BUTTE	212,968	47,753	31,918	4,045	12,633	7,036	2,955	56,921	12,115
CALAVERAS	45,939	9,205	8,138	780	2,856	1,646	760	14,240	3,084
COLUSA	20,339	6,013	2,350	509	1,099	598	236	4,681	991
CONTRA COSTA	1,009,144	261,015	113,985	22,108	58,009	31,544	12,432	250,153	53,055
EL DORADO	172,889	40,496	20,297	3,430	10,349	5,666	2,286	45,727	9,778
FRESNO	866,772	265,454	83,825	22,484	45,996	24,480	8,957	184,033	38,496
GLENN	27,488	7,899	3,469	669	1,503	828	338	6,611	1,406
HUMBOLDT	128,529	27,822	16,013	2,357	7,787	4,249	1,690	33,686	7,162
IMPERIAL	152,448	45,628	15,651	3,865	8,153	4,359	1,617	32,907	6,894
INYO	18,244	3,987	3,360	338	1,105	643	303	5,617	1,218
KERN	734,846	224,367	66,154	19,004	39,061	20,617	7,335	152,897	31,861
KINGS	142,561	39,811	10,374	3,372	7,801	3,987	1,253	27,664	5,627
LAKE	64,446	14,665	10,710	1,242	3,852	2,202	995	18,763	4,043
LOS ANGELES	9,937,739	2,732,330	988,760	231,428	552,691	294,228	107,900	2,227,574	465,287
MADERA	138,951	39,139	14,750	3,315	7,638	4,096	1,537	31,269	6,551
MARIN	246,045	49,770	35,137	4,216	15,399	8,632	3,727	72,667	15,635

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of California
424 Pendleton Way
Oakland, CA 94621-2189
(510) 638-5864 www.californialung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALAMEDA	9	1	0	3.5	F
AMADOR	11	0	0	3.7	F
BUTTE	24	0	0	8.0	F
CALAVERAS	33	1	0	11.5	F
COLUSA	0	0	0	0.0	A
CONTRA COSTA	6	0	0	2.0	C
EL DORADO	66	13	1	29.2	F
FRESNO	179	32	3	77.7	F
GLENN	0	0	0	0.0	A
HUMBOLDT	DNC	DNC	DNC	DNC	DNC
IMPERIAL	22	0	0	7.3	F
INYO	2	0	0	0.7	B
KERN	242	66	2	115.0	F
KINGS	50	1	0	17.2	F
LAKE	0	0	0	0.0	A
LOS ANGELES	158	45	16	85.8	F
MADERA	31	1	0	10.8	F
MARIN	0	0	0	0.0	A

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALAMEDA	8	0	0	2.7	D	11.0	PASS
AMADOR	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BUTTE	6	1	0	2.5	D	13.6	PASS
CALAVERAS	0	0	0	0.0	A	8.7	PASS
COLUSA	2	0	0	0.7	B	8.9	PASS
CONTRA COSTA	21	2	0	8.0	F	11.0	PASS
EL DORADO	0	0	0	0.0	A	*	INC
FRESNO	96	16	0	40.0	F	18.7	FAIL
GLENN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HUMBOLDT	0	0	0	0.0	A	8.1	PASS
IMPERIAL	8	1	0	3.2	D	13.3	PASS
INYO	4	2	0	2.3	D	6.1	PASS
KERN	95	22	0	42.7	F	20.6	FAIL
KINGS	26	2	0	9.7	F	18.4	FAIL
LAKE	1	1	0	0.8	B	5.1	PASS
LOS ANGELES	101	12	0	39.7	F	21.7	FAIL
MADERA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MARIN	DNC	DNC	DNC	DNC	DNC	DNC	DNC

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
MARIPOSA	18,003	3,430	3,124	291	1,130	646	293	5,510	1,191
MENDOCINO	88,551	21,094	12,057	1,787	5,255	2,931	1,244	24,215	5,206
MERCED	237,005	77,167	21,066	6,536	12,205	6,444	2,293	47,584	9,927
MODOC	9,599	2,139	1,734	181	578	335	157	2,908	630
MONO	12,766	2,802	1,051	237	778	409	145	3,089	650
MONTEREY	414,629	117,298	40,641	9,935	22,773	12,104	4,411	91,020	19,023
NAPA	132,339	30,920	19,087	2,619	7,820	4,363	1,847	35,785	7,635
NEVADA	97,660	19,860	16,613	1,682	6,068	3,483	1,594	30,057	6,512
ORANGE	2,987,591	796,815	309,791	67,490	168,504	90,221	33,759	692,672	145,112
PLACER	307,004	71,881	42,287	6,088	18,092	10,010	4,137	81,004	17,193
PLUMAS	21,359	4,208	3,881	356	1,340	778	366	6,821	1,484
RIVERSIDE	1,871,950	534,328	217,741	45,258	101,805	55,076	21,193	424,140	88,859
SACRAMENTO	1,352,445	367,147	146,673	31,097	75,639	40,699	15,457	314,162	65,910
SAN BENITO	56,243	17,322	4,643	1,467	3,003	1,582	561	11,800	2,470
SAN BERNARDINO	1,921,131	590,853	157,655	50,045	101,975	53,378	18,462	390,748	81,249
SAN DIEGO	2,931,714	757,564	324,998	64,166	166,491	89,461	33,791	686,222	143,849
SAN FRANCISCO	744,230	109,713	108,675	9,293	48,531	26,543	10,582	211,230	44,149
SAN JOAQUIN	649,868	192,479	63,176	16,303	35,033	18,644	6,824	140,380	29,384

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of California
424 Pendleton Way
Oakland, CA 94621-2189
(510) 638-5864 www.californialung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
MARIPOSA	61	2	0	21.3	F
MENDOCINO	0	0	0	0.0	A
MERCED	116	8	1	43.3	F
MODOC	DNC	DNC	DNC	DNC	DNC
MONO	*	*	*	*	*
MONTEREY	0	0	0	0.0	A
NAPA	0	0	0	0.0	A
NEVADA	61	4	0	22.3	F
ORANGE	22	1	0	7.8	F
PLACER	45	4	0	17.0	F
PLUMAS	0	0	0	0.0	A
RIVERSIDE	165	67	7	93.2	F
SACRAMENTO	69	11	0	28.5	F
SAN BENITO	7	0	0	2.3	D
SAN BERNARDINO	150	86	24	109.0	F
SAN DIEGO	27	0	0	9.0	F
SAN FRANCISCO	0	0	0	0.0	A
SAN JOAQUIN	6	0	0	2.0	C

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
MARIPOSA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MENDOCINO	1	0	0	0.3	B	7.8	PASS
MERCED	21	1	0	7.5	F	16.5	FAIL
MODOC	*	*	*	*	*	*	INC
MONO	*	*	*	*	*	*	INC
MONTEREY	0	0	0	0.0	A	7.8	PASS
NAPA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
NEVADA	0	0	0	0.0	A	7.3	PASS
ORANGE	49	4	0	18.3	F	17.6	FAIL
PLACER	1	0	0	0.3	B	10.8	PASS
PLUMAS	5	0	0	1.7	C	*	INC
RIVERSIDE	133	21	0	54.8	F	24.8	FAIL
SACRAMENTO	38	5	0	15.2	F	12.4	PASS
SAN BENITO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SAN BERNARDINO	49	11	0	21.8	F	23.4	FAIL
SAN DIEGO	24	2	0	9.0	F	14.7	PASS
SAN FRANCISCO	16	4	0	7.3	F	11.0	PASS
SAN JOAQUIN	15	0	0	5.0	F	14.5	PASS

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
SAN LUIS OBISPO	254,566	50,839	36,413	4,306	15,663	8,654	3,560	69,453	14,802
SAN MATEO	699,216	162,823	89,545	13,791	41,529	22,834	9,293	184,543	39,136
SANTA BARBARA	401,851	98,917	51,337	8,378	23,157	12,641	5,009	99,093	20,924
SANTA CLARA	1,685,188	421,879	172,760	35,733	97,337	51,978	19,297	398,377	83,393
SANTA CRUZ	250,633	57,580	24,883	4,877	15,010	8,018	2,992	61,589	13,075
SHASTA	177,816	41,951	26,651	3,553	10,490	5,897	2,549	48,898	10,483
SISKIYOU	44,891	9,458	8,166	801	2,755	1,599	752	13,960	3,033
SOLANO	412,970	114,008	41,770	9,656	23,080	12,375	4,660	95,389	20,091
SONOMA	468,450	110,345	58,467	9,346	27,807	15,275	6,208	123,053	26,256
STANISLAUS	498,355	148,528	49,560	12,580	26,808	14,316	5,302	108,591	22,752
SUTTER	86,760	23,676	10,689	2,005	4,835	2,644	1,055	20,888	4,413
TEHAMA	60,075	15,171	9,204	1,285	3,446	1,943	845	16,100	3,442
TULARE	401,502	130,518	37,363	11,055	20,726	11,015	4,011	82,489	17,265
TUOLUMNE	56,962	10,556	10,439	894	3,582	2,060	945	17,688	3,809
VENTURA	797,699	217,896	84,338	18,456	44,787	24,143	9,248	187,830	39,663
YOLO	184,364	44,828	17,248	3,797	10,634	5,565	1,917	40,041	8,370
TOTALS	**35,747,805**	**9,560,091**	**3,806,739**	**809,739**	**2,011,399**	**1,079,454**	**406,663**	**8,293,413**	**1,740,290**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of California
424 Pendleton Way
Oakland, CA 94621-2189
(510) 638-5864 www.californialung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
SAN LUIS OBISPO	1	0	0	0.3	B
SAN MATEO	0	0	0	0.0	A
SANTA BARBARA	12	0	0	4.0	F
SANTA CLARA	12	0	0	4.0	F
SANTA CRUZ	0	0	0	0.0	A
SHASTA	8	0	0	2.7	D
SISKIYOU	0	0	0	0.0	A
SOLANO	1	0	0	0.3	B
SONOMA	0	0	0	0.0	A
STANISLAUS	46	1	0	15.8	F
SUTTER	18	0	0	6.0	F
TEHAMA	13	0	0	4.3	F
TULARE	238	25	0	91.8	F
TUOLUMNE	32	0	0	10.7	F
VENTURA	59	4	0	21.7	F
YOLO	5	0	0	1.7	C

Ozone
- Colusa County's grade improved from a C to an A.
- Grades for Contra Costa, San Joaquin, and Yolo Counties improved from a D to a C.
- Inyo County's grade improved from a C to a B.
- Shasta County's grade dropped from a C to a D.
- Solano County's grade dropped from an A to a B.

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
SAN LUIS OBISPO	0	0	0	0.0	A	8.6	PASS
SAN MATEO	1	0	0	0.3	B	9.9	PASS
SANTA BARBARA	0	0	0	0.0	A	8.5	PASS
SANTA CLARA	20	0	0	6.7	F	10.8	PASS
SANTA CRUZ	0	0	0	0.0	A	7.6	PASS
SHASTA	0	0	0	0.0	A	8.4	PASS
SISKIYOU	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SOLANO	4	1	0	1.8	C	11.3	PASS
SONOMA	3	0	0	1.0	C	9.2	PASS
STANISLAUS	20	3	0	8.2	F	15.6	FAIL
SUTTER	1	0	0	0.3	B	10.8	PASS
TEHAMA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TULARE	27	5	0	11.5	F	19.5	FAIL
TUOLUMNE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
VENTURA	3	1	0	1.5	C	13.8	PASS
YOLO	0	1	0	0.5	B	9.8	PASS

PM
- Alameda and Imperial Counties each improved their grade to a D from an F.
- Lake County's grade dropped from an A to a B.
- Modoc County does not have enough data to receive a grade.
- Nevada, San Luis Obispo, Santa Barbara and Shasta Counties each improved their grade from a B to an A.
- Placer and Sutter Counties each improved their grade from a C to a B.
- Plumas County's grade improved from an F to a C.
- San Mateo County's grade improved from a D to a B.
- Solano, Sonoma and Ventura Counties each improved their grade from a D to a C.
- El Dorado County does not have sufficient data to grade their annual levels.
- Monterey County now has sufficient data to grade their annual levels.
- San Diego County's annual grade improved from failing to passing.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

COLORADO

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ADAMS	389,857	112,518	30,656	9,530	23,930	11,014	3,689	79,717	16,384
ARAPAHOE	522,812	139,664	48,055	11,830	33,194	15,737	5,735	119,822	25,118
ARCHULETA	11,615	2,593	1,492	220	788	390	162	3,187	684
BOULDER	278,917	62,739	22,714	5,314	18,662	8,693	2,959	63,501	13,261
DELTA	29,774	6,806	5,740	576	2,027	1,029	489	8,975	1,936
DENVER	556,835	135,626	60,670	11,488	36,530	17,182	6,349	130,890	27,148
DOUGLAS	237,963	71,238	10,957	6,034	14,308	6,501	1,943	45,124	9,211
EL PASO	554,574	153,399	49,398	12,993	34,712	16,267	5,776	121,318	25,313
ELBERT	22,488	6,000	1,537	508	1,425	679	237	5,118	1,082
GUNNISON	14,166	2,598	1,030	220	995	451	140	3,109	642
JEFFERSON	526,351	130,128	55,620	11,022	34,444	16,684	6,463	131,676	27,944
LA PLATA	46,468	9,646	4,658	817	3,191	1,517	557	11,519	2,436
LARIMER	268,872	62,156	26,460	5,265	17,899	8,415	3,030	63,037	13,205
MESA	127,253	30,409	19,326	2,576	8,478	4,166	1,787	34,260	7,302
MONTEZUMA	24,795	6,443	3,636	546	1,608	799	347	6,657	1,427
PUEBLO	150,171	38,158	22,160	3,232	9,800	4,793	2,037	39,179	8,327
ROUTT	21,012	4,355	1,202	369	1,433	667	214	4,832	1,005
SAN MIGUEL	7,116	1,237	276	105	504	229	66	1,583	322
WELD	219,257	60,015	17,799	5,083	13,741	6,320	2,118	45,407	9,390
TOTALS	**4,010,296**	**1,035,728**	**383,386**	**87,728**	**257,669**	**121,533**	**44,098**	**918,911**	**192,137**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Colorado
5600 Greenwood Plaza Blvd., Suite 100
Greenwood Village, CO 80111
(303) 388-4327 www.lungcolorado.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ADAMS	0	0	0	0.0	A
ARAPAHOE	4	2	0	2.3	D
ARCHULETA	DNC	DNC	DNC	DNC	DNC
BOULDER	3	0	0	1.0	C
DELTA	DNC	DNC	DNC	DNC	DNC
DENVER	3	1	0	1.5	C
DOUGLAS	8	2	0	3.7	F
ELBERT	DNC	DNC	DNC	DNC	DNC
EL PASO	0	0	0	0.0	A
GUNNISON	DNC	DNC	DNC	DNC	DNC
JEFFERSON	23	0	0	7.7	F
LA PLATA	0	0	0	0.0	A
LARIMER	14	0	0	4.7	F
MESA	DNC	DNC	DNC	DNC	DNC
MONTEZUMA	0	0	0	0.0	A
PUEBLO	DNC	DNC	DNC	DNC	DNC
ROUTT	DNC	DNC	DNC	DNC	DNC
SAN MIGUEL	DNC	DNC	DNC	DNC	DNC
WELD	2	0	0	0.7	B

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS	1	0	0	0.3	B	10.2	PASS
ARAPAHOE	1	0	0	0.3	B	8.3	PASS
ARCHULETA	0	0	0	0.0	A	6.0	PASS
BOULDER	0	0	0	0.0	A	8.9	PASS
DELTA	0	0	0	0.0	A	8.2	PASS
DENVER	2	0	0	0.7	B	10.0	PASS
DOUGLAS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ELBERT	0	0	0	0.0	A	4.3	PASS
EL PASO	0	0	0	0.0	A	8.1	PASS
GUNNISON	0	0	0	0.0	A	6.7	PASS
JEFFERSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LA PLATA	*	*	*	*	*	*	INC
LARIMER	0	0	0	0.0	A	7.6	PASS
MESA	1	0	0	0.3	B	*	INC
MONTEZUMA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PUEBLO	0	0	0	0.0	A	7.4	PASS
ROUTT	0	0	0	0.0	A	7.3	PASS
SAN MIGUEL	0	0	0	0.0	A	5.1	PASS
WELD	0	0	0	0.0	A	8.8	PASS

Ozone
- There were no changes in grades or monitoring.

PM
- Adams County's grade improved from a C to a B.
- Boulder County's grade improved from a B to an A.
- Denver County's grade improved from a D to a B.
- La Plata County does not have enough data to receive a grade.
- Mesa County's grade dropped from an A to a B.
- San Miguel County's grade improved from a B to an A.
- Weld County's grade improved from a C to an A.
- Archuleta County now has sufficient data to grade their annual levels.
- La Plata and Mesa Counties do not have sufficient data to grade their annual levels.
- Douglas County no longer has PM monitors.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

CONNECTICUT

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
FAIRFIELD	903,291	229,833	117,561	19,467	65,152	28,837	11,942	234,815	49,974
HARTFORD	875,602	207,986	125,455	17,616	64,289	28,759	12,196	236,460	50,439
LITCHFIELD	189,246	43,236	26,899	3,662	14,000	6,363	2,730	53,061	11,368
MIDDLESEX	162,295	36,511	22,099	3,092	12,150	5,404	2,251	44,162	9,418
NEW HAVEN	845,694	200,799	117,972	17,008	62,361	27,556	11,489	223,876	47,643
NEW LONDON	266,466	62,961	34,800	5,333	19,780	8,627	3,507	69,207	14,689
TOLLAND	146,667	30,760	15,475	2,605	11,465	4,772	1,765	36,001	7,659
TOTALS	**3,389,261**	**812,086**	**460,261**	**68,783**	**249,197**	**110,318**	**45,880**	**897,582**	**191,190**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Connecticut
45 Ash Street
East Hartford, CT 06108-3272
(860) 289-5401 www.alact.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
FAIRFIELD	34	11	2	18.2	F
HARTFORD	11	0	1	4.3	F
LITCHFIELD	18	2	0	7.0	F
MIDDLESEX	20	4	1	9.3	F
NEW HAVEN	27	9	2	14.8	F
NEW LONDON	9	3	1	5.2	F
TOLLAND	14	3	0	6.2	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
FAIRFIELD	6	1	0	2.5	D	12.7	PASS
HARTFORD	9	1	0	3.5	F	11.3	PASS
LITCHFIELD	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MIDDLESEX	DNC	DNC	DNC	DNC	DNC	DNC	DNC
NEW HAVEN	23	1	1	8.8	F	13.4	PASS
NEW LONDON	2	1	0	1.2	C	11.2	PASS
TOLLAND	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Fairfield County's grade improved from an F to a D.
- New Haven County's grade improved from failing to passing.
- Litchfield County no longer has PM monitors.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

DELAWARE

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
KENT	138,752	34,911	16,697	2,957	10,354	4,337	1,702	34,011	7,181
NEW CASTLE	519,396	122,744	59,241	10,396	39,561	16,516	6,359	128,712	27,149
SUSSEX	172,216	35,851	33,023	3,037	13,022	6,077	2,847	52,752	11,324
TOTALS	**830,364**	**193,506**	**108,961**	**16,390**	**62,937**	**26,930**	**10,908**	**215,475**	**45,654**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Delaware
1021 Gilpin Avenue, Suite 202
Wilmington, DE 19806-3280
(302) 655-7258 www.alade.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
KENT	13	0	0	4.3	F
NEW CASTLE	21	5	0	9.5	F
SUSSEX	21	2	0	8.0	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
KENT	3	2	0	2.0	C	12.6	PASS
NEW CASTLE	13	3	0	5.8	F	15.3	FAIL
SUSSEX	3	2	0	2.0	C	13.2	PASS

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Kent and Sussex Counties grade improved from a D to a C.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

DISTRICT OF COLUMBIA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
DISTRICT OF COLUMBIA	553,523	109,547	67,171	9,279	40,361	18,237	6,886	140,637	29,238
TOTALS	**553,523**	**109,547**	**67,171**	**9,279**	**40,361**	**18,237**	**6,886**	**140,637**	**29,238**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of the District of Columbia
1725 K Street, NW
Suite 1209
Washington, DC 20006
(202) 682-5864 www.aladc.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
DISTRICT OF COLUMBIA	18	8	1	10.7	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
DISTRICT OF COLUMBIA	19	0	0	6.3	F	15.1	FAIL

Ozone
• No changes occurred in ozone grades or monitors.
PM
• No changes occurred in ozone grades or monitors.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

FLORIDA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ALACHUA	223,090	44,340	22,166	3,756	12,967	7,130	2,459	51,578	10,733
BAKER	24,019	6,331	2,310	536	1,299	727	267	5,528	1,163
BAY	157,949	37,445	22,006	3,172	8,849	5,184	2,181	42,503	9,064
BREVARD	519,387	110,074	104,030	9,323	29,786	18,404	8,810	161,312	34,802
BROWARD	1,754,893	430,913	249,841	36,498	96,682	56,671	23,844	463,068	98,350
CITRUS	130,465	21,980	40,432	1,862	7,779	5,232	2,955	50,342	11,009
COLLIER	296,678	61,957	70,007	5,248	16,896	10,741	5,453	96,975	20,938
COLUMBIA	61,889	15,185	8,727	1,286	3,419	2,005	846	16,390	3,497
DUVAL	821,338	220,052	84,432	18,638	44,159	24,928	9,419	192,716	40,590
ESCAMBIA	298,859	70,094	42,002	5,937	16,705	9,749	4,053	78,369	16,780
HIGHLANDS	93,127	17,969	29,110	1,522	5,333	3,605	2,051	34,623	7,548
HILLSBOROUGH	1,101,261	282,539	126,736	23,931	59,958	34,198	13,324	268,070	56,586
HOLMES	19,011	4,218	2,936	357	1,077	636	272	5,228	1,111
LAKE	260,788	52,615	68,035	4,456	14,893	9,648	5,082	88,790	19,204
LEE	514,295	105,642	119,196	8,948	29,522	18,712	9,451	168,832	36,485

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Florida
5526 Arlington Road
Jacksonville, FL 32211-5216
(904) 743-2933 www.lungfla.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALACHUA	0	0	0	0.0	A
BAKER	0	0	0	0.0	A
BAY	5	0	0	1.7	C
BREVARD	0	0	0	0.0	A
BROWARD	1	0	0	0.3	B
CITRUS	DNC	DNC	DNC	DNC	DNC
COLLIER	0	0	0	0.0	A
COLUMBIA	0	0	0	0.0	A
DUVAL	3	0	0	1.0	C
ESCAMBIA	7	0	0	2.3	D
HIGHLANDS	0	0	0	0.0	A
HILLSBOROUGH	4	0	0	1.3	C
HOLMES	1	0	0	0.3	B
LAKE	3	0	0	1.0	C
LEE	1	0	0	0.3	B

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALACHUA	0	0	0	0.0	A	9.7	PASS
BAKER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BAY	1	0	0	0.3	B	11.0	PASS
BREVARD	0	0	0	0.0	A	7.9	PASS
BROWARD	1	1	0	0.8	B	8.1	PASS
CITRUS	1	0	0	0.3	B	8.8	PASS
COLLIER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
COLUMBIA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DUVAL	0	0	0	0.0	A	10.3	PASS
ESCAMBIA	2	0	0	0.7	B	11.4	PASS
HIGHLANDS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HILLSBOROUGH	0	0	0	0.0	A	10.8	PASS
HOLMES	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LAKE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LEE	0	0	0	0.0	A	8.1	PASS

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
LEON	243,867	52,331	21,054	4,432	13,987	7,639	2,577	55,139	11,463
MANATEE	296,385	64,055	67,343	5,425	16,777	10,615	5,342	95,513	20,631
MARION	291,322	61,275	68,480	5,190	16,574	10,537	5,352	95,113	20,566
MIAMI-DADE	2,363,600	587,986	321,460	49,802	129,409	75,227	30,921	604,813	128,148
ORANGE	989,926	257,060	94,679	21,773	53,577	29,815	10,742	224,161	46,746
OSCEOLA	219,544	57,957	24,144	4,909	11,794	6,675	2,537	51,532	10,813
PALM BEACH	1,243,230	271,519	267,306	22,998	70,167	43,863	21,508	388,290	83,641
PASCO	407,799	85,078	91,758	7,206	23,281	14,654	7,291	130,842	28,212
PINELLAS	928,537	184,665	194,736	15,641	54,226	33,757	16,439	299,727	64,755
POLK	524,389	129,416	92,645	10,962	28,655	17,378	7,960	148,044	31,729
SAINT LUCIE	226,816	50,379	48,388	4,267	12,732	7,950	3,887	70,211	15,117
SANTA ROSA	138,276	33,843	16,282	2,867	7,695	4,416	1,756	35,165	7,470
SARASOTA	355,477	59,799	105,456	5,065	21,259	14,144	7,841	134,814	29,417
SEMINOLE	391,449	96,243	41,785	8,152	21,812	12,392	4,784	97,460	20,645
VOLUSIA	478,670	97,289	99,967	8,240	27,669	17,170	8,294	150,903	32,565
WAKULLA	27,179	6,175	3,196	523	1,545	882	346	6,961	1,474
TOTALS	**15,403,515**	**3,576,424**	**2,550,645**	**302,922**	**860,483**	**514,684**	**228,044**	**4,313,012**	**921,252**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Florida
5526 Arlington Road
Jacksonville, FL 32211-5216
(904) 743-2933 www.lungfla.org

HIGH OZONE DAYS 2002-2004[1]

PARTICLE POLLUTION DAYS 2002-2004[2]

						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
LEON	0	0	0	0.0	A	1	0	0	0.3	B	12.6	PASS
MANATEE	4	0	0	1.3	C	0	0	0	0.0	A	*	INC
MARION	1	0	0	0.3	B	0	0	0	0.0	A	9.9	PASS
MIAMI-DADE	2	0	0	0.7	B	3	0	0	1.0	C	9.4	PASS
ORANGE	1	0	0	0.3	B	0	0	0	0.0	A	9.7	PASS
OSCEOLA	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PALM BEACH	0	0	0	0.0	A	0	0	0	0.0	A	7.5	PASS
PASCO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PINELLAS	0	0	0	0.0	A	0	0	0	0.0	A	9.8	PASS
POLK	0	0	0	0.0	A	0	0	0	0.0	A	9.8	PASS
SAINT LUCIE	0	0	0	0.0	A	0	0	0	0.0	A	8.4	PASS
SANTA ROSA	5	0	0	1.7	C	0	0	0	0.0	A	*	INC
SARASOTA	7	0	0	2.3	D	0	0	0	0.0	A	8.8	PASS
SEMINOLE	0	0	0	0.0	A	0	0	0	0.0	A	9.1	PASS
VOLUSIA	0	0	0	0.0	A	0	0	0	0.0	A	9.0	PASS
WAKULLA	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Alachua, Osceola, Palm Beach, Pinellas, Saint Lucie and Seminole Counties each improved their grade from a B to an A.
- Brevard and Polk Counties each improved their grade from a C to an A.
- Broward, Pasco and Wakulla Counties each improved their grade from a C to a B.
- Collier County now has sufficient data to receive a grade.
- Duval County's grade dropped from an A to a C.
- Escambia County's grade dropped from a C to a D.
- Hillsborough County's grade improved from a D to a C.
- Lake County's grade dropped from a B to a C.

PM
- Bay, Citrus, Escambia and Leon Counties each dropped their grade from an A to a B.
- Broward County's grade improved from a C to a B.
- Duval and Orange Counties each improved their grade from a C to an A.
- Manatee, Polk and Sarasota Counties each improved their grade from a B to an A.
- Miami-Dade County's grade dropped from a B to a C.
- Santa Rosa County now has sufficient data to receive a grade
- Bay County now has sufficient data to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

GEORGIA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BIBB	155,170	42,122	19,421	3,568	8,367	4,773	1,930	38,013	8,070
CHATHAM	238,518	60,544	29,902	5,128	13,185	7,446	2,958	58,617	12,384
CHATTOOGA	26,554	6,044	3,695	512	1,518	865	353	6,926	1,461
CHEROKEE	174,680	48,248	12,194	4,087	9,417	5,032	1,656	36,375	7,503
CLARKE	103,951	19,047	8,720	1,613	6,351	3,221	965	21,292	4,308
CLAYTON	264,951	79,805	18,145	6,759	13,806	7,280	2,341	51,598	10,572
COBB	654,005	171,909	51,161	14,561	35,867	19,407	6,630	142,991	29,673
COWETA	105,376	29,154	8,896	2,469	5,669	3,076	1,072	22,815	4,734
DAWSON	19,064	4,578	2,012	388	1,075	598	224	4,617	967
DEKALB	675,725	170,351	55,725	14,429	37,617	20,234	6,884	148,132	30,618
DOUGHERTY	95,681	26,555	11,334	2,249	5,121	2,891	1,142	22,671	4,802
DOUGLAS	107,217	29,423	8,040	2,492	5,791	3,114	1,048	22,713	4,704
FAYETTE	101,333	25,566	10,019	2,165	5,606	3,217	1,250	25,509	5,462
FLOYD	94,009	23,297	12,850	1,973	5,233	2,989	1,226	23,926	5,074
FULTON	814,438	206,588	62,709	17,498	45,245	24,351	8,204	177,635	36,843
GLYNN	71,357	17,762	10,393	1,504	3,957	2,314	991	19,101	4,078

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association-Southeast Region
2452 Spring Road
Smyrna, GA 30080-3862
(770) 434-5864 www.alaga.org

HIGH OZONE DAYS 2002-2004[1]

PARTICLE POLLUTION DAYS 2002-2004[2]

						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BIBB	14	0	0	4.7	F	4	0	0	1.3	C	15.5	FAIL
CHATHAM	1	0	0	0.3	B	1	0	0	0.3	B	13.3	PASS
CHATTOOGA	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHEROKEE	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CLARKE	5	1	0	2.2	D	0	0	0	0.0	A	14.7	PASS
CLAYTON	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	16.1	FAIL
COBB	12	3	0	5.5	F	3	0	0	1.0	C	15.6	FAIL
COWETA	10	1	0	3.8	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DAWSON	5	0	0	1.7	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DEKALB	20	2	0	7.7	F	9	0	0	3.0	D	15.5	FAIL
DOUGHERTY	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	13.8	PASS
DOUGLAS	25	1	0	8.8	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FAYETTE	9	0	0	3.0	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FLOYD	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	15.5	FAIL
FULTON	22	4	0	9.3	F	12	0	0	4.0	F	17.5	FAIL
GLYNN	0	0	0	0.0	A	1	0	0	0.3	B	11.7	PASS

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
GWINNETT	700,794	196,411	39,860	16,636	37,633	19,738	6,088	138,234	28,266
HALL	160,925	44,399	15,089	3,761	8,666	4,701	1,669	34,985	7,247
HENRY	159,506	44,727	11,659	3,788	8,556	4,530	1,477	32,387	6,639
HOUSTON	123,753	33,317	12,117	2,822	6,717	3,697	1,353	27,936	5,858
LOWNDES	95,787	24,969	8,934	2,115	5,272	2,827	979	20,620	4,263
MURRAY	40,556	11,185	3,577	947	2,185	1,183	414	8,772	1,816
MUSCOGEE	182,850	51,007	21,576	4,320	9,768	5,512	2,175	43,304	9,148
PAULDING	105,936	31,694	6,006	2,684	5,548	2,855	849	19,494	3,928
RICHMOND	196,265	53,544	21,342	4,535	10,587	5,902	2,248	45,422	9,581
ROCKDALE	76,821	20,615	7,040	1,746	4,172	2,314	846	17,617	3,709
SUMTER	32,873	9,207	3,903	780	1,754	988	390	7,746	1,638
WALKER	63,379	15,213	8,618	1,289	3,562	2,051	847	16,608	3,521
WASHINGTON	21,061	5,320	2,663	451	1,166	662	265	5,254	1,111
WILKINSON	10,191	2,590	1,391	219	562	324	135	2,627	558
TOTALS	**5,672,726**	**1,505,191**	**488,991**	**127,488**	**309,973**	**168,092**	**58,609**	**1,243,937**	**258,536**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association-Southeast Region
2452 Spring Road
Smyrna, GA 30080-3862
(770) 434-5864 www.alaga.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
GWINNETT	16	1	0	5.8	F
HALL	DNC	DNC	DNC	DNC	DNC
HENRY	14	1	1	5.8	F
HOUSTON	DNC	DNC	DNC	DNC	DNC
LOWNDES	DNC	DNC	DNC	DNC	DNC
MURRAY	16	0	0	5.3	F
MUSCOGEE	2	0	0	0.7	B
PAULDING	11	2	0	4.7	F
RICHMOND	8	0	0	2.7	D
ROCKDALE	16	3	0	6.8	F
SUMTER	2	0	0	0.7	B
WALKER	DNC	DNC	DNC	DNC	DNC
WASHINGTON	DNC	DNC	DNC	DNC	DNC
WILKINSON	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
GWINNETT	2	0	0	0.7	B	15.9	FAIL
HALL	1	0	0	0.3	B	14.4	PASS
HENRY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HOUSTON	0	0	0	0.0	A	13.2	PASS
LOWNDES	0	0	0	0.0	A	12.2	PASS
MURRAY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MUSCOGEE	3	1	0	1.5	C	14.5	PASS
PAULDING	1	0	0	0.3	B	13.6	PASS
RICHMOND	2	0	0	0.7	B	14.9	PASS
ROCKDALE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SUMTER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WALKER	1	0	0	0.3	B	15.2	FAIL
WASHINGTON	1	0	0	0.3	B	14.4	PASS
WILKINSON	4	0	0	1.3	C	14.4	PASS

Ozone
- Chattooga County now has ozone monitors, but not enough data to grade.
- Clarke County now has enough data to receive a grade.
- Dawson County's grade improved from a D to a C.
- Glynn County's grade improved from a B to an A.
- Sumter County's grade improved from a C to a B.

PM
- Bibb County's grade dropped from a B to a C.
- Chatham County's grade improved from a C to a B.
- Clarke County's grade improved from a C to an A.
- DeKalb County's grade improved from an F to a D.
- Glynn County's grade dropped from an A to a B.
- Houston and Lowndes Counties each improved their grade from a B to an A.
- Muscogee County's grade improved from a D to a C.
- Clarke County's grade improved from failing to passing.
- Glynn and Hall Counties now have sufficient data to grade their annual levels.
- Coffee County no longer has PM monitors.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

HAWAII

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
HAWAII	162,971	41,865	21,756	3,546	9,750	5,234	2,209	42,927	9,218
HONOLULU	899,593	208,134	125,648	17,629	56,030	29,484	12,240	238,986	50,789
MAUI	138,221	33,469	15,809	2,835	8,482	4,438	1,759	35,353	7,525
TOTALS	**1,200,785**	**283,468**	**163,213**	**24,010**	**74,262**	**39,156**	**16,208**	**317,266**	**67,532**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Hawaii
245 North Kukui Street, Suite 100
Honolulu, HI 96817-3921
(808) 537-5966 www.ala-hawaii.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
HAWAII	0	0	0	0.0	A
HONOLULU	0	0	0	0.0	A
MAUI	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
HAWAII	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HONOLULU	3	3	0	2.5	D	5.2	PASS
MAUI	0	0	0	0.0	A	5.0	PASS

Ozone
- No changes occurred in ozone grades or monitors.

PM
- No changes occurred in ozone grades or monitors.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

IDAHO

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ADA	332,523	86,488	31,049	7,326	19,274	10,055	3,637	75,961	15,897
BANNOCK	75,672	20,927	7,867	1,773	4,305	2,255	847	17,277	3,630
BENEWAH	8,961	2,204	1,372	187	555	300	135	2,564	555
BOISE	7,362	1,696	848	144	460	246	101	2,016	435
BONNER	39,872	8,990	5,439	761	2,522	1,356	583	11,342	2,451
BONNEVILLE	89,653	26,667	9,124	2,259	4,980	2,619	1,000	20,266	4,289
BOUNDARY	10,396	2,715	1,347	230	624	335	142	2,763	596
BUTTE	2,838	753	458	64	172	93	43	805	175
CANYON	158,038	47,287	16,129	4,005	8,657	4,519	1,674	34,176	7,146
CARIBOU	7,213	1,985	1,010	168	424	227	98	1,881	405
ELMORE	28,878	7,992	2,329	677	1,594	816	265	5,750	1,173
FRANKLIN	12,199	4,095	1,378	347	641	338	134	2,642	560
GEM	15,963	4,051	2,532	343	968	521	231	4,370	938
IDAHO	15,616	3,427	2,730	290	1,008	549	256	4,763	1,037
KOOTENAI	122,350	30,592	15,738	2,591	7,352	3,908	1,600	31,517	6,708
LATAH	35,169	6,745	3,503	571	2,191	1,131	387	8,036	1,692
LEMHI	7,820	1,741	1,351	147	505	275	129	2,408	524
NEZ PERCE	37,823	8,406	6,422	712	2,393	1,289	578	10,878	2,333
POWER	7,483	2,235	826	189	420	223	89	1,763	378
SHOSHONE	12,827	2,672	2,395	226	843	460	218	4,045	879
TWIN FALLS	67,935	17,631	9,551	1,493	4,033	2,148	902	17,433	3,714
VALLEY	7,970	1,592	1,274	135	528	287	130	2,471	538
TOTALS	**1,104,561**	**290,891**	**124,672**	**24,638**	**64,449**	**33,950**	**13,179**	**265,127**	**56,053**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Idaho
1111 South Orchard
Suite 245
Boise, ID 83705
(208) 345-5864 www.lungusa.org/idaho_nevada

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ADA	1	0	0	0.3	B
BANNOCK	DNC	DNC	DNC	DNC	DNC
BENEWAH	DNC	DNC	DNC	DNC	DNC
BOISE	DNC	DNC	DNC	DNC	DNC
BONNER	DNC	DNC	DNC	DNC	DNC
BONNEVILLE	DNC	DNC	DNC	DNC	DNC
BOUNDARY	DNC	DNC	DNC	DNC	DNC
BUTTE	0	0	0	0.0	A
CANYON	0	0	0	0.0	A
CARIBOU	DNC	DNC	DNC	DNC	DNC
ELMORE	0	0	0	0.0	A
FRANKLIN	DNC	DNC	DNC	DNC	DNC
GEM	DNC	DNC	DNC	DNC	DNC
IDAHO	DNC	DNC	DNC	DNC	DNC
KOOTENAI	DNC	DNC	DNC	DNC	DNC
LATAH	DNC	DNC	DNC	DNC	DNC
LEMHI	DNC	DNC	DNC	DNC	DNC
NEZ PERCE	DNC	DNC	DNC	DNC	DNC
POWER	DNC	DNC	DNC	DNC	DNC
SHOSHONE	DNC	DNC	DNC	DNC	DNC
TWIN FALLS	DNC	DNC	DNC	DNC	DNC
VALLEY	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADA	3	0	0	1.0	C	8.8	PASS
BANNOCK	2	1	0	1.2	C	7.8	PASS
BENEWAH	*	*	*	*	*	*	INC
BOISE	0	0	0	0.0	A	*	INC
BONNER	0	0	0	0.0	A	*	INC
BONNEVILLE	2	0	0	0.7	B	*	INC
BOUNDARY	0	0	0	0.0	A	*	INC
BUTTE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CANYON	6	1	0	2.5	D	8.7	PASS
CARIBOU	0	0	0	0.0	A	*	INC
ELMORE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FRANKLIN	*	*	*	*	*	*	INC
GEM	*	*	*	*	*	*	INC
IDAHO	0	0	0	0.0	A	*	INC
KOOTENAI	*	*	*	*	*	*	INC
LATAH	*	*	*	*	*	*	INC
LEMHI	*	*	*	*	*	*	INC
NEZ PERCE	0	0	0	0.0	A	*	INC
POWER	1	0	0	0.3	B	9.0	PASS
SHOSHONE	5	0	0	1.7	C	12.6	PASS
TWIN FALLS	*	*	*	*	*	*	INC
VALLEY	*	*	*	*	*	*	INC

Ozone
- Canyon County now has enough data to receive a grade.

PM
- Ada County's grade improved from an F to a C.
- Bannock County's grade improved from a D to a C.
- Boise, Boundary, Caribou and Idaho Counties now have sufficient data to receive a grade.
- Bonneville County's grade dropped from an A to a B.
- Kootenai and Twin Falls Counties no longer have sufficient data to receive a grade.
- Power County's grade dropped from an A to a B.
- Franklin and Gem Counties now have PM monitors, but not enough data to grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

ILLINOIS

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ADAMS	66,916	15,839	11,667	1,342	4,331	2,243	1,019	19,019	4,080
CHAMPAIGN	184,369	37,800	18,309	3,202	12,447	5,786	1,958	40,782	8,520
CLARK	16,906	3,944	2,830	334	1,098	568	254	4,802	1,028
COOK	5,327,777	1,375,261	622,145	116,485	334,441	164,530	63,971	1,286,873	270,649
DU PAGE	928,718	239,522	94,330	20,288	58,114	28,708	10,881	223,316	47,129
EFFINGHAM	34,575	9,084	4,866	769	2,158	1,092	461	8,915	1,898
HAMILTON	8,400	1,839	1,592	156	556	293	138	2,540	547
JERSEY	22,320	5,073	3,204	430	1,460	736	307	5,948	1,268
KANE	472,482	139,179	37,292	11,788	28,164	13,389	4,595	98,361	20,403
LA SALLE	112,335	26,800	17,989	2,270	7,246	3,715	1,633	31,012	6,624
LAKE	692,895	197,137	61,549	16,698	41,829	20,331	7,377	153,769	32,347
MACON	110,980	26,821	17,334	2,272	7,115	3,681	1,625	30,864	6,635
MACOUPIN	49,067	11,082	8,284	939	3,217	1,662	743	13,996	3,002
MADISON	264,350	62,923	37,166	5,330	17,046	8,594	3,582	69,746	14,823
MCHENRY	296,389	83,010	25,521	7,031	18,009	8,697	3,102	65,399	13,665
MCLEAN	158,006	36,321	15,291	3,076	10,314	4,864	1,688	35,090	7,354
PEORIA	182,418	45,811	25,495	3,880	11,558	5,846	2,454	47,531	10,141
RANDOLPH	33,360	7,125	5,024	603	2,223	1,118	469	9,096	1,928
ROCK ISLAND	147,771	34,606	22,459	2,931	9,574	4,896	2,113	40,534	8,662
SAINT CLAIR	259,132	68,492	33,006	5,801	16,131	8,053	3,265	64,323	13,632
SANGAMON	192,042	46,360	25,789	3,927	12,306	6,235	2,588	50,775	10,802
WILL	613,849	173,583	49,087	14,702	37,205	17,670	6,051	129,688	26,878
WINNEBAGO	286,788	73,949	36,680	6,263	17,998	9,016	3,667	72,396	15,335
TOTALS	**10,461,845**	**2,721,561**	**1,176,909**	**230,517**	**654,540**	**321,723**	**123,941**	**2,504,775**	**527,350**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Metropolitan Chicago

1440 West Washington Blvd.
Chicago, IL 60607-1878
(312) 243-2000 www.lungchicago.org

American Lung Association of Illinois

3000 Kelly Lane
Springfield, IL 62711-6226
(217) 787-5864 wwwl.lungil.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ADAMS	2	0	0	0.7	B
CHAMPAIGN	1	0	0	0.3	B
CLARK	6	0	0	2.0	C
COOK	17	5	0	8.2	F
DU PAGE	3	0	0	1.0	C
EFFINGHAM	2	0	0	0.7	B
HAMILTON	8	0	0	2.7	D
JERSEY	8	3	0	4.2	F
KANE	3	0	0	1.0	C
LAKE	8	3	0	4.2	F
LA SALLE	DNC	DNC	DNC	DNC	DNC
MCHENRY	6	0	0	2.0	C
MCLEAN	5	0	0	1.7	C
MACON	4	0	0	1.3	C
MACOUPIN	5	0	0	1.7	C
MADISON	27	1	0	9.5	F
PEORIA	3	0	0	1.0	C
RANDOLPH	5	0	0	1.7	C
ROCK ISLAND	0	0	0	0.0	A
SAINT CLAIR	10	2	0	4.3	F
SANGAMON	0	0	0	0.0	A
WILL	10	0	0	3.3	F
WINNEBAGO	2	0	0	0.7	B

Ozone
- Adams County's grade improved from a C to a B.
- McHenry County's grade improved from a D to a C.
- Sangamon County's grade improved from a B to an A.

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS	0	0	0	0.0	A	12.6	PASS
CHAMPAIGN	0	0	0	0.0	A	11.9	PASS
CLARK	DNC	DNC	DNC	DNC	DNC	DNC	DNC
COOK	21	0	0	7.0	F	16.0	FAIL
DU PAGE	0	0	0	0.0	A	13.5	PASS
EFFINGHAM	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HAMILTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JERSEY	*	*	*	*	*	*	INC
KANE	1	0	0	0.3	B	13.0	PASS
LAKE	1	0	0	0.3	B	11.7	PASS
LA SALLE	0	0	0	0.0	A	*	INC
MCHENRY	0	0	0	0.0	A	11.9	PASS
MCLEAN	1	0	0	0.3	B	12.5	PASS
MACON	0	0	0	0.0	A	13.2	PASS
MACOUPIN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MADISON	9	0	0	3.0	D	16.9	FAIL
PEORIA	1	0	0	0.3	B	13.5	PASS
RANDOLPH	0	0	0	0.0	A	12.0	PASS
ROCK ISLAND	0	0	0	0.0	A	11.6	PASS
SAINT CLAIR	4	1	0	1.8	C	15.4	FAIL
SANGAMON	0	0	0	0.0	A	12.8	PASS
WILL	2	0	0	0.7	B	13.3	PASS
WINNEBAGO	1	0	0	0.3	B	12.9	PASS

PM
- Adams, Du Page, La Salle, Macon and Sangamon Counties each improved their grade from a B to an A.
- Madison County's grade improved from an F to a D.
- Saint Clair County's grade improved from a D to a C.
- Will County's grade improved from a C to a B.
- Winnebago County's now has sufficient data to grade their annual levels.
- Jersey County's now has PM monitors, but not enough data to grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

INDIANA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ALLEN	342,168	95,381	38,443	8,079	20,797	10,341	4,054	81,516	17,211
BOONE	50,847	13,723	5,761	1,162	3,136	1,565	619	12,436	2,634
CARROLL	20,331	5,094	2,808	431	1,288	657	277	5,401	1,152
CLARK	100,706	24,576	12,552	2,082	6,421	3,218	1,293	25,784	5,448
DELAWARE	117,774	25,321	16,273	2,145	7,743	3,868	1,551	30,243	6,440
DUBOIS	40,771	10,707	5,367	907	2,534	1,281	530	10,374	2,204
ELKHART	191,768	55,516	21,055	4,702	11,455	5,669	2,194	44,255	9,311
FLOYD	71,543	17,956	8,818	1,521	4,531	2,280	925	18,379	3,904
GIBSON	33,286	8,020	5,011	679	2,130	1,093	471	9,052	1,931
GREENE	33,500	8,139	5,020	689	2,140	1,100	476	9,148	1,951
HAMILTON	231,760	68,455	17,374	5,798	13,742	6,569	2,242	48,375	10,030
HANCOCK	60,915	15,308	7,170	1,297	3,858	1,932	772	15,457	3,279
HENDRICKS	123,476	32,577	11,938	2,759	7,650	3,728	1,366	28,400	5,938
HENRY	47,809	11,337	7,656	960	3,081	1,599	711	13,517	2,894
HOWARD	84,615	21,733	11,642	1,841	5,318	2,716	1,153	22,415	4,784
HUNTINGTON	38,124	9,547	5,503	809	2,407	1,228	522	10,058	2,146

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Indiana
9445 Delegates Row
Indianapolis, IN 46240-1470
(317) 573-3900 www.lungin.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALLEN	19	0	0	6.3	F
BOONE	18	2	0	7.0	F
CARROLL	14	0	0	4.7	F
CLARK	21	0	0	7.0	F
DELAWARE	17	0	0	5.7	F
DUBOIS	DNC	DNC	DNC	DNC	DNC
ELKHART	21	1	0	7.5	F
FLOYD	16	1	0	5.8	F
GIBSON	1	0	0	0.3	B
GREENE	18	0	0	6.0	F
HAMILTON	19	3	0	7.8	F
HANCOCK	20	3	0	8.2	F
HENDRICKS	10	1	0	3.8	F
HENRY	DNC	DNC	DNC	DNC	DNC
HOWARD	DNC	DNC	DNC	DNC	DNC
HUNTINGTON	12	1	0	4.5	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALLEN	2	0	0	0.7	B	13.7	PASS
BOONE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CARROLL	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CLARK	5	0	0	1.7	C	15.6	FAIL
DELAWARE	2	0	0	0.7	B	13.6	PASS
DUBOIS	4	0	0	1.3	C	15.5	FAIL
ELKHART	2	0	0	0.7	B	14.4	PASS
FLOYD	3	0	0	1.0	C	14.3	PASS
GIBSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GREENE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HAMILTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HANCOCK	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HENDRICKS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HENRY	1	0	0	0.3	B	13.0	PASS
HOWARD	1	0	0	0.3	B	13.9	PASS
HUNTINGTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

INDIANA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
JACKSON	41,959	10,794	5,604	914	2,624	1,326	547	10,737	2,273
JOHNSON	125,864	32,935	14,331	2,790	7,821	3,876	1,506	30,352	6,397
KNOX	38,442	8,332	5,991	706	2,531	1,293	553	10,538	2,259
KOSCIUSKO	75,667	20,408	9,470	1,729	4,661	2,348	958	18,904	4,012
LA PORTE	109,755	26,563	14,886	2,250	7,021	3,559	1,479	28,992	6,162
LAKE	490,844	129,702	63,351	10,986	30,484	15,416	6,363	124,995	26,580
MADISON	130,602	31,003	19,735	2,626	8,401	4,313	1,863	35,778	7,640
MARION	863,596	233,532	94,914	19,780	52,938	26,093	9,975	202,567	42,473
MORGAN	69,424	18,136	7,645	1,536	4,338	2,159	845	17,087	3,619
PERRY	18,999	4,071	2,769	345	1,257	637	266	5,187	1,101
PORTER	154,961	37,677	17,354	3,191	9,922	4,937	1,930	38,949	8,273
POSEY	26,990	6,736	3,404	571	1,717	870	359	7,083	1,515
SAINT JOSEPH	266,431	69,440	35,092	5,882	16,559	8,334	3,407	66,450	14,155
SHELBY	43,717	11,271	5,390	955	2,741	1,378	559	11,079	2,353
SPENCER	20,310	5,043	2,705	427	1,292	657	275	5,387	1,150
TIPPECANOE	152,042	31,726	14,070	2,687	9,989	4,701	1,539	32,590	6,756
VANDERBURGH	173,157	40,605	25,620	3,439	11,144	5,672	2,398	46,219	9,845
VIGO	103,195	23,723	14,157	2,009	6,674	3,354	1,366	26,694	5,674
WARRICK	55,465	13,944	6,308	1,181	3,520	1,763	702	14,114	3,002
TOTALS	**4,550,813**	**1,179,031**	**545,187**	**99,865**	**283,865**	**141,530**	**56,046**	**1,118,512**	**236,496**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Indiana
9445 Delegates Row
Indianapolis, IN 46240-1470
(317) 573-3900 www.lungin.org

HIGH OZONE DAYS 2002-2004[1]

PARTICLE POLLUTION DAYS 2002-2004[2]

						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
JACKSON	10	0	0	3.3	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JOHNSON	12	1	0	4.5	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KNOX	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	*	INC
KOSCIUSKO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LAKE	22	1	0	7.8	F	17	0	0	5.7	F	17.2	FAIL
LA PORTE	17	6	0	8.7	F	1	0	0	0.3	B	12.9	PASS
MADISON	22	2	0	8.3	F	2	0	0	0.7	B	14.0	PASS
MARION	19	3	1	8.5	F	9	1	0	3.5	F	16.0	FAIL
MORGAN	15	0	0	5.0	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PERRY	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PORTER	19	3	0	7.8	F	3	0	0	1.0	C	13.2	PASS
POSEY	13	1	0	4.8	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SAINT JOSEPH	26	3	0	10.2	F	2	0	0	0.7	B	13.6	PASS
SHELBY	16	3	0	6.8	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SPENCER	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	13.6	PASS
TIPPECANOE	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	*	INC
VANDERBURGH	17	1	0	6.2	F	5	0	0	1.7	C	14.7	PASS
VIGO	11	0	0	3.7	F	3	0	0	1.0	C	13.8	PASS
WARRICK	21	1	0	7.5	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Clark County's grade improved from a D to a C.
- Madison, Saint Joseph and Tippecanoe Counties each improved their grade from a C to a B.
- Porter County's grade dropped from a B to a C.
- The grades for Elkhart and Vanderburgh Counties both improved from failing to passing.
- Delaware and Madison Counties now have sufficient data to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

IOWA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BLACK HAWK	126,078	26,873	17,835	2,276	6,585	4,197	1,719	33,574	7,129
BREMER	23,455	4,943	3,812	419	1,227	805	353	6,672	1,438
CERRO GORDO	45,029	9,623	8,054	815	2,349	1,566	716	13,390	2,878
CLINTON	49,872	11,631	7,905	985	2,533	1,670	736	14,013	3,000
EMMET	10,604	2,318	2,002	196	550	369	173	3,185	687
HARRISON	15,821	3,678	2,697	312	805	535	242	4,553	978
JOHNSON	116,097	22,058	9,087	1,868	6,257	3,645	1,134	24,934	5,125
LINN	197,262	47,420	24,711	4,016	9,924	6,308	2,519	50,164	10,602
MONTGOMERY	11,398	2,603	2,224	220	583	398	191	3,507	758
MUSCATINE	42,557	10,599	5,459	898	2,112	1,363	558	11,026	2,343
PALO ALTO	9,778	2,027	2,101	172	517	350	171	3,078	666
POLK	393,184	97,974	43,027	8,298	19,539	12,243	4,662	95,069	19,967
POTTAWATTAMIE	89,236	21,488	12,163	1,820	4,485	2,893	1,201	23,494	4,996
SCOTT	160,141	39,727	19,244	3,365	7,953	5,098	2,041	40,744	8,648
STORY	80,404	13,821	8,258	1,171	4,446	2,610	870	18,162	3,783
VAN BUREN	7,710	1,698	1,453	144	399	269	127	2,341	505
WARREN	42,560	10,070	5,207	853	2,148	1,372	547	10,893	2,317
WOODBURY	103,113	27,307	13,122	2,313	5,023	3,209	1,305	25,698	5,451
WRIGHT	13,648	3,049	2,803	258	703	483	237	4,299	932
TOTALS	**1,537,947**	**358,907**	**191,164**	**30,399**	**78,138**	**49,383**	**19,502**	**388,796**	**82,203**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Iowa
5601 Douglas Avenue
Des Moines, IA 50310-1800
(515) 278-5864 www.lungia.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BLACK HAWK	DNC	DNC	DNC	DNC	DNC
BREMER	0	0	0	0.0	A
CERRO GORDO	DNC	DNC	DNC	DNC	DNC
CLINTON	1	0	0	0.3	B
EMMET	DNC	DNC	DNC	DNC	DNC
HARRISON	1	0	0	0.3	B
JOHNSON	DNC	DNC	DNC	DNC	DNC
LINN	0	0	0	0.0	A
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	2	0	0	0.7	B
STORY	0	0	0	0.0	A
VAN BUREN	2	0	0	0.7	B
WARREN	0	0	0	0.0	A
WOODBURY	DNC	DNC	DNC	DNC	DNC
WRIGHT	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BLACK HAWK	0	0	0	0.0	A	10.8	PASS
BREMER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CERRO GORDO	1	0	0	0.3	B	*	INC
CLINTON	1	0	0	0.3	B	11.9	PASS
EMMET	0	0	0	0.0	A	8.8	PASS
HARRISON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JOHNSON	0	0	0	0.0	A	11.4	PASS
LINN	2	0	0	0.7	B	10.7	PASS
MONTGOMERY	0	0	0	0.0	A	*	INC
MUSCATINE	2	0	0	0.7	B	12.6	PASS
PALO ALTO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
POLK	1	0	0	0.3	B	10.4	PASS
POTTAWATTAMIE	0	0	0	0.0	A	10.3	PASS
SCOTT	1	0	0	0.3	B	11.8	PASS
STORY	*	*	*	*	*	*	INC
VAN BUREN	0	0	0	0.0	A	*	INC
WARREN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WOODBURY	0	0	0	0.0	A	10.0	PASS
WRIGHT	*	*	*	*	*	*	INC

Ozone
- Bremer County's grade improved from a B to an A.
- Montgomery County now has enough data to receive a grade.

PM
- Black Hawk and Johnson Counties each improved their grade from a B to an A.
- Cerro Gordo County's grade dropped from an A to B.
- Linn, Muscatine and Scott Counties each improved their grade from a C to a B.
- Montgomery County now has enough data to receive a grade.
- Cerro Gordo and Van Buren Counties do not have sufficient data to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

KANSAS

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
DOUGLAS	102,786	19,599	8,502	1,660	6,297	3,209	997	21,747	4,466
JEFFERSON	18,906	4,492	2,538	380	1,068	620	259	5,068	1,084
JOHNSON	496,691	127,012	49,337	10,758	27,699	15,278	5,689	117,598	24,705
LEAVENWORTH	72,439	17,927	7,191	1,518	4,087	2,239	823	17,062	3,578
LINN	9,775	2,202	1,746	187	554	337	156	2,902	626
SEDGWICK	463,802	126,187	51,828	10,688	25,185	14,074	5,457	110,098	23,198
SHAWNEE	171,716	41,863	23,529	3,546	9,617	5,569	2,330	45,480	9,688
SUMNER	25,272	6,465	4,004	548	1,382	828	371	7,001	1,508
TREGO	3,158	641	779	54	181	118	62	1,083	236
WYANDOTTE	156,487	43,966	17,042	3,724	8,400	4,665	1,788	36,215	7,608
TOTALS	**1,521,032**	**390,354**	**166,496**	**33,063**	**84,470**	**46,937**	**17,932**	**364,254**	**76,697**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Kansas
4300 SW Drury Lane
Topeka, KS 66604-2419
(785) 272-9290 www.kslung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
DOUGLAS	*	*	*	*	*
JEFFERSON	*	*	*	*	*
JOHNSON	*	*	*	*	*
LEAVENWORTH	*	*	*	*	*
LINN	0	0	0	0.0	A
SEDGWICK	3	0	0	1.0	C
SHAWNEE	DNC	DNC	DNC	DNC	DNC
SUMNER	1	0	0	0.3	B
TREGO	0	0	0	0.0	A
WYANDOTTE	5	0	0	1.7	C

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
DOUGLAS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JEFFERSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JOHNSON	1	0	0	0.3	B	11.2	PASS
LEAVENWORTH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LINN	0	0	0	0.0	A	10.4	PASS
SEDGWICK	1	0	0	0.3	B	10.9	PASS
SHAWNEE	1	0	0	0.3	B	10.7	PASS
SUMNER	0	0	0	0.0	A	10.0	PASS
TREGO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WYANDOTTE	1	0	0	0.3	B	13.3	PASS

Ozone
- Sumner County's grade improved from a C to a B.

PM
- Wyandotte County's grade improved from a C to a B.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

KENTUCKY

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
BELL	29,672	6,782	4,075	574	1,884	979	406	7,958	1,693
BOONE	101,354	27,190	8,516	2,303	6,120	3,000	1,048	22,299	4,639
BOYD	49,743	10,428	7,806	883	3,236	1,713	747	14,352	3,067
BULLITT	66,645	16,442	5,588	1,393	4,162	2,047	722	15,363	3,213
CAMPBELL	87,256	21,260	11,048	1,801	5,425	2,784	1,118	22,161	4,696
CARTER	27,459	6,411	3,734	543	1,729	895	368	7,208	1,531
CHRISTIAN	70,649	21,874	7,128	1,853	3,975	1,973	721	14,753	3,069
DAVIESS	92,587	22,765	13,026	1,928	5,739	2,999	1,265	24,541	5,235
EDMONSON	11,921	2,585	1,746	219	768	402	170	3,301	703
FAYETTE	266,358	56,997	27,193	4,828	17,193	8,494	3,048	63,558	13,247
FRANKLIN	48,142	10,542	5,895	893	3,107	1,590	633	12,673	2,691
GRAVES	37,401	8,897	5,799	754	2,339	1,239	541	10,343	2,211
GREENUP	37,274	8,124	5,848	688	2,402	1,276	561	10,729	2,302
HANCOCK	8,459	2,166	976	183	521	267	107	2,139	455
HARDIN	96,066	25,511	10,224	2,161	5,812	2,927	1,114	22,578	4,775

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Kentucky
P.O. Box 9067
Louisville, KY 40209-0067
(502) 363-2652 www.kylung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BELL	9	0	0	3.0	D
BOONE	16	0	0	5.3	F
BOYD	26	3	0	10.2	F
BULLITT	11	0	0	3.7	F
CAMPBELL	25	3	0	9.8	F
CARTER	5	0	0	1.7	C
CHRISTIAN	11	0	0	3.7	F
DAVIESS	4	0	0	1.3	C
EDMONSON	5	0	0	1.7	C
FAYETTE	3	0	0	1.0	C
FRANKLIN	DNC	DNC	DNC	DNC	DNC
GRAVES	7	0	0	2.3	D
GREENUP	3	0	0	1.0	C
HANCOCK	8	0	0	2.7	D
HARDIN	2	0	0	0.7	B

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BELL	1	0	0	0.3	B	14.0	PASS
BOONE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BOYD	2	0	0	0.7	B	14.3	PASS
BULLITT	3	0	0	1.0	C	14.2	PASS
CAMPBELL	2	0	0	0.7	B	13.7	PASS
CARTER	0	0	0	0.0	A	11.6	PASS
CHRISTIAN	0	0	0	0.0	A	12.9	PASS
DAVIESS	2	1	0	1.2	C	13.9	PASS
EDMONSON	*	*	*	*	*	*	INC
FAYETTE	4	0	0	1.3	C	14.1	PASS
FRANKLIN	2	0	0	0.7	B	13.2	PASS
GRAVES	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GREENUP	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HANCOCK	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HARDIN	1	0	0	0.3	B	13.2	PASS

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

KENTUCKY

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
HENDERSON	45,426	10,571	5,973	895	2,875	1,489	612	12,065	2,567
JEFFERSON	700,030	167,514	93,471	14,188	43,835	22,714	9,366	184,212	39,112
JESSAMINE	42,313	10,553	4,234	894	2,616	1,302	478	9,860	2,072
KENTON	152,890	39,428	16,638	3,340	9,359	4,730	1,818	36,972	7,790
LAUREL	55,993	13,663	6,564	1,157	3,487	1,774	695	13,996	2,953
LIVINGSTON	9,762	2,006	1,509	170	640	339	147	2,839	608
MADISON	76,208	16,603	7,589	1,406	4,877	2,390	836	17,423	3,637
MCCRACKEN	64,700	14,706	10,150	1,246	4,119	2,193	968	18,495	3,967
MCLEAN	9,982	2,316	1,442	196	632	332	142	2,745	586
MUHLENBERG	31,752	6,899	4,885	584	2,042	1,077	465	8,940	1,910
OLDHAM	52,100	12,681	3,918	1,074	3,290	1,615	565	12,129	2,554
PERRY	29,762	6,953	3,417	589	1,886	960	376	7,596	1,608
PIKE	67,080	14,745	8,479	1,249	4,329	2,229	903	17,975	3,821
PULASKI	58,727	13,165	9,083	1,115	3,739	1,973	853	16,386	3,494
SCOTT	38,029	9,741	3,269	825	2,328	1,137	393	8,337	1,736
SIMPSON	16,891	4,263	2,230	361	1,038	538	221	4,351	923
TRIGG	13,249	2,869	2,241	243	852	456	205	3,874	830
WARREN	97,168	21,770	10,328	1,844	6,187	3,074	1,124	23,061	4,848
TOTALS	**2,593,048**	**618,420**	**314,022**	**52,380**	**162,543**	**82,907**	**32,736**	**655,212**	**138,543**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Kentucky
P.O. Box 9067
Louisville, KY 40209-0067
(502) 363-2652 www.kylung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
HENDERSON	8	0	0	2.7	D
JEFFERSON	20	0	0	6.7	F
JESSAMINE	5	0	0	1.7	C
KENTON	19	2	0	7.3	F
LAUREL	DNC	DNC	DNC	DNC	DNC
LIVINGSTON	13	0	0	4.3	F
MCCRACKEN	6	0	0	2.0	C
MCLEAN	14	0	0	4.7	F
MADISON	DNC	DNC	DNC	DNC	DNC
MUHLENBERG	*	*	*	*	*
OLDHAM	13	1	0	4.8	F
PERRY	3	0	0	1.0	C
PIKE	2	0	0	0.7	B
PULASKI	2	0	0	0.7	B
SCOTT	1	0	0	0.3	B
SIMPSON	2	0	0	0.7	B
TRIGG	0	0	0	0.0	A
WARREN	7	0	0	2.3	D

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
HENDERSON	4	0	0	1.3	C	*	INC
JEFFERSON	20	3	0	8.2	F	15.9	FAIL
JESSAMINE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KENTON	0	0	0	0.0	A	14.3	PASS
LAUREL	0	0	0	0.0	A	12.2	PASS
LIVINGSTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MCCRACKEN	2	0	0	0.7	B	12.7	PASS
MCLEAN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MADISON	1	0	0	0.3	B	13.1	PASS
MUHLENBERG	DNC	DNC	DNC	DNC	DNC	DNC	DNC
OLDHAM	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PERRY	0	0	0	0.0	A	12.8	PASS
PIKE	3	0	0	1.0	C	13.0	PASS
PULASKI	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SCOTT	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SIMPSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TRIGG	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WARREN	0	0	0	0.0	A	13.2	PASS

Ozone
- Bell County's grade improved from an F to a D.
- Edmonson, Greenup and McCracken Counties each improved their grade from a D to a C.
- Hardin and Simpson Counties each improved their grade from a C to a B.

PM
- Boyd, Campbell and Franklin Counties each improved their grade from a C to a B.
- Carter County's grade improved from a B to an A.
- Daviess County's grade improved from a D to C.
- Kenton County's grade improved from a C to an A.
- Laurel County now has enough data to receive a grade.
- Perry County's grade improved from D to an A.
- Fayette County's grade improved from failing to passing.
- Laurel County now has sufficient data to grade their annual levels.
- Edmonson County now has PM monitors, but not enough data to grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

LOUISIANA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ASCENSION	87,164	24,371	6,562	2,064	3,814	2,511	844	18,255	3,784
BEAUREGARD	34,094	8,730	4,121	739	1,551	1,069	426	8,488	1,799
BOSSIER	104,080	27,790	11,627	2,354	4,659	3,169	1,220	24,616	5,188
CADDO	251,506	64,297	34,160	5,446	11,472	7,985	3,319	64,639	13,763
CALCASIEU	184,961	47,781	22,511	4,047	8,388	5,778	2,306	45,814	9,716
CONCORDIA	19,724	5,134	2,985	435	896	637	280	5,324	1,144
EAST BATON ROUGE	412,633	102,756	42,492	8,703	18,890	12,707	4,693	96,189	20,259
GRANT	19,139	5,034	2,431	426	863	600	246	4,836	1,029
IBERVILLE	32,497	7,972	3,569	675	1,496	1,015	385	7,834	1,647
JEFFERSON	453,590	110,138	55,869	9,329	20,998	14,550	5,850	116,490	24,716
LAFAYETTE	195,707	50,574	19,506	4,284	8,845	5,946	2,184	45,092	9,457
LAFOURCHE	92,157	23,174	10,688	1,963	4,214	2,872	1,114	22,371	4,724
LIVINGSTON	105,653	28,177	8,971	2,387	4,711	3,128	1,090	23,148	4,819
ORLEANS	462,269	118,991	53,445	10,079	20,971	14,354	5,608	112,368	23,800
OUACHITA	148,355	39,837	17,666	3,374	6,635	4,530	1,781	35,461	7,495
POINTE COUPEE	22,537	5,613	3,202	475	1,038	731	311	6,012	1,286
RAPIDES	128,013	32,942	16,794	2,790	5,822	4,038	1,657	32,454	6,902
SAINT BERNARD	65,554	15,699	8,768	1,330	3,053	2,128	879	17,255	3,670
SAINT CHARLES	50,073	13,633	4,554	1,155	2,218	1,502	551	11,431	2,414
SAINT JAMES	21,146	5,726	2,518	485	943	651	260	5,161	1,097

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Louisiana
2325 Severn Avenue, Suite 8
Metairie, LA 70001-6918
(504) 828-5864 www.louisianalung.org

HIGH OZONE DAYS 2002-2004[1]

Parish	Orange	Red	Purple	Wgt. Avg	Grade
ASCENSION	3	0	0	1.0	C
BEAUREGARD	0	0	0	0.0	A
BOSSIER	1	0	0	0.3	B
CADDO	2	0	0	0.7	B
CALCASIEU	5	0	0	1.7	C
CONCORDIA	DNC	DNC	DNC	DNC	DNC
EAST BATON ROUGE	24	6	0	11.0	F
GRANT	1	0	0	0.3	B
IBERVILLE	16	1	0	5.8	F
JEFFERSON	9	0	0	3.0	D
LAFAYETTE	4	0	0	1.3	C
LAFOURCHE	0	0	0	0.0	A
LIVINGSTON	3	0	0	1.0	C
ORLEANS	0	0	0	0.0	A
OUACHITA	2	0	0	0.7	B
POINTE COUPEE	1	1	0	0.8	B
RAPIDES	DNC	DNC	DNC	DNC	DNC
SAINT BERNARD	5	0	0	1.7	C
SAINT CHARLES	4	0	0	1.3	C
SAINT JAMES	2	0	0	0.7	B

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
Parish	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ASCENSION	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BEAUREGARD	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BOSSIER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CADDO	1	0	0	0.3	B	12.2	PASS
CALCASIEU	1	0	0	0.3	B	10.8	PASS
CONCORDIA	0	0	0	0.0	A	*	INC
EAST BATON ROUGE	2	0	0	0.7	B	12.7	PASS
GRANT	DNC	DNC	DNC	DNC	DNC	DNC	DNC
IBERVILLE	1	0	0	0.3	B	12.3	PASS
JEFFERSON	1	0	0	0.3	B	11.6	PASS
LAFAYETTE	0	0	0	0.0	A	10.6	PASS
LAFOURCHE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LIVINGSTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ORLEANS	2	0	0	0.7	B	11.7	PASS
OUACHITA	1	0	0	0.3	B	11.0	PASS
POINTE COUPEE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
RAPIDES	1	0	0	0.3	B	*	INC
SAINT BERNARD	0	0	0	0.0	A	10.3	PASS
SAINT CHARLES	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SAINT JAMES	DNC	DNC	DNC	DNC	DNC	DNC	DNC

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
SAINT JOHN THE BAPTIST	45,581	13,106	3,530	1,110	1,973	1,317	458	9,761	2,046
SAINT MARY	52,189	14,428	6,230	1,222	2,309	1,599	644	12,754	2,714
TANGIPAHOA	105,158	27,424	10,919	2,323	4,740	3,199	1,194	24,406	5,135
TERREBONNE	106,523	29,033	11,010	2,459	4,726	3,204	1,208	24,675	5,194
WEST BATON ROUGE	21,880	5,662	2,171	480	988	670	249	5,136	1,081
TOTALS	**3,222,183**	**828,022**	**366,299**	**70,134**	**146,213**	**99,890**	**38,757**	**779,970**	**164,879**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Louisiana
2325 Severn Avenue, Suite 8
Metairie, LA 70001-6918
(504) 828-5864 www.louisianalung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
SAINT JOHN THE BAPTIST	2	0	0	0.7	B
SAINT MARY	1	0	0	0.3	B
TANGIPAHOA	DNC	DNC	DNC	DNC	DNC
TERREBONNE	DNC	DNC	DNC	DNC	DNC
WEST BATON ROUGE	7	2	0	3.3	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
SAINT JOHN THE BAPTIST	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SAINT MARY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TANGIPAHOA	0	0	0	0.0	A	10.5	PASS
TERREBONNE	1	0	0	0.3	B	10.0	PASS
WEST BATON ROUGE	1	0	0	0.3	B	12.6	PASS

Ozone
- Ascension grade dropped from a B to a C.
- Bossier, Caddo, Point Coupee, Saint James and Saint James the Baptist each improved their grade from a C to a B.
- Jefferson grade improved from an F to a D.
- Lafourche grade improved from a C to an A.
- Saint Mary grade dropped from an A to a B.

PM
- East Baton Rouge grade improved from a C to a B.
- Jefferson and Terrebonne grade each dropped from an A to a B.
- Bossier now has PM monitors, but not enough data to grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

MAINE

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ANDROSCOGGIN	107,022	23,933	15,106	2,027	7,992	3,553	1,481	28,859	6,148
AROOSTOOK	73,390	14,900	12,619	1,262	5,578	2,595	1,177	22,188	4,786
CUMBERLAND	273,505	59,409	36,481	5,032	20,631	9,153	3,763	74,145	15,809
HANCOCK	53,556	10,665	8,525	903	4,105	1,888	833	15,937	3,432
KENNEBEC	120,645	25,653	17,143	2,173	9,132	4,102	1,731	33,681	7,217
KNOX	41,008	8,274	6,926	701	3,124	1,452	656	12,420	2,675
OXFORD	56,614	12,028	8,832	1,019	4,269	1,955	858	16,451	3,533
PENOBSCOT	148,196	30,434	19,701	2,578	11,360	4,999	2,027	39,911	8,526
SAGADAHOC	36,927	8,555	4,753	725	2,734	1,219	503	9,948	2,123
WASHINGTON	33,558	6,959	5,849	589	2,535	1,181	539	10,119	2,182
YORK	200,359	44,856	27,529	3,799	14,958	6,710	2,817	55,142	11,783
TOTALS	**1,144,780**	**245,666**	**163,464**	**20,808**	**86,418**	**38,807**	**16,385**	**318,801**	**68,214**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Maine
122 State Street
Augusta, ME 04330-5615
(207) 622-6394 www.mainelung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ANDROSCOGGIN	*	*	*	*	*
AROOSTOOK	DNC	DNC	DNC	DNC	DNC
CUMBERLAND	5	0	0	1.7	C
HANCOCK	10	3	0	4.8	F
KENNEBEC	5	0	0	1.7	C
KNOX	7	1	0	2.8	D
OXFORD	1	0	0	0.3	B
PENOBSCOT	4	1	0	1.8	C
SAGADAHOC	6	0	0	2.0	C
WASHINGTON	*	*	*	*	*
YORK	15	4	0	7.0	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ANDROSCOGGIN	2	0	0	0.7	B	10.7	PASS
AROOSTOOK	3	0	0	1.0	C	11.2	PASS
CUMBERLAND	0	0	0	0.0	A	11.7	PASS
HANCOCK	2	0	0	0.7	B	6.2	PASS
KENNEBEC	0	0	0	0.0	A	10.4	PASS
KNOX	*	*	*	*	*	*	INC
OXFORD	1	0	0	0.3	B	10.2	PASS
PENOBSCOT	2	0	0	0.7	B	10.0	PASS
SAGADAHOC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WASHINGTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
YORK	*	*	*	*	*	*	INC

Ozone
- Cumberland and Penobscot Counties each improved their grade from an F to a C.
- Kennebec County's grade improved from a D to a C.
- Knox County's grade improved from an F to a D.
- Sagadahoc County now has enough data to receive a grade.
- Androscoggin and Washington Counties now have ozone monitors, but not enough data to grade.
- Piscataquis County no longer has ozone monitors.

PM
- Androscoggin County's grade improved from a C to a B.
- Aroostook County's grade dropped from a B to a C.
- Cumberland and Kennebec Counties each improved their grade from a B to an A.
- Oxford County's grade dropped from an A to a B.
- York County no longer has enough data to receive a grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

MARYLAND

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ANNE ARUNDEL	508,572	126,463	52,629	10,711	29,911	15,914	6,037	123,749	26,120
BALTIMORE	780,821	180,811	113,168	15,315	46,859	25,776	10,899	211,103	45,007
BALTIMORE CITY	636,251	160,677	79,074	13,609	37,160	19,992	7,980	158,135	33,518
CARROLL	166,159	42,162	17,984	3,571	9,705	5,200	2,014	40,815	8,653
CECIL	95,526	24,578	10,147	2,082	5,551	2,950	1,124	22,951	4,832
CHARLES	135,807	37,039	10,812	3,137	7,737	4,001	1,390	29,694	6,199
FREDERICK	217,653	57,584	21,326	4,877	12,528	6,612	2,460	50,763	10,683
HARFORD	235,594	61,959	25,210	5,248	13,589	7,282	2,820	57,263	12,118
KENT	19,582	3,739	3,812	317	1,235	703	328	6,032	1,303
MONTGOMERY	921,690	232,692	106,912	19,709	53,912	29,180	11,619	233,241	49,484
PRINCE GEORGE'S	842,967	225,378	69,406	19,090	48,370	25,055	8,767	186,224	38,956
WASHINGTON	139,624	31,919	19,423	2,704	8,410	4,561	1,872	36,724	7,763
TOTALS	**4,700,246**	**1,185,001**	**529,903**	**100,370**	**274,967**	**147,226**	**57,310**	**1,156,694**	**244,636**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Maryland
Executive Plaza 1, Suite 600
11350 McCormick Road
Hunt Valley, MD 21031
(410) 560-2120 www.marylandlung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ANNE ARUNDEL	28	15	0	16.8	F
BALTIMORE	24	5	0	10.5	F
CARROLL	13	0	0	4.3	F
CECIL	21	6	1	10.7	F
CHARLES	17	5	0	8.2	F
FREDERICK	16	1	0	5.8	F
HARFORD	28	12	2	16.7	F
KENT	17	5	0	8.2	F
MONTGOMERY	15	1	0	5.5	F
PRINCE GEORGE'S	26	4	1	11.3	F
WASHINGTON	21	0	0	7.0	F
BALTIMORE CITY	*	*	*	*	*

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ANNE ARUNDEL	7	1	0	2.8	D	15.2	FAIL
BALTIMORE	12	2	0	5.0	F	14.9	PASS
CARROLL	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CECIL	2	1	0	1.2	C	*	INC
CHARLES	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FREDERICK	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HARFORD	1	2	0	1.3	C	12.5	PASS
KENT	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MONTGOMERY	3	0	0	1.0	C	12.5	PASS
PRINCE GEORGE'S	6	0	0	2.0	C	*	INC
WASHINGTON	4	1	0	1.8	C	14.1	PASS
BALTIMORE CITY	30	1	0	10.5	F	16.3	FAIL

Ozone
- Baltimore City no longer has enough data to receive a grade.
- Calvert County no longer has ozone monitors.

PM
- Washington County's grade improved from an F to a D.
- Baltimore County's annual grade improved from failing to passing.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

MASSACHUSETTS

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BARNSTABLE	228,683	42,676	52,837	3,615	17,501	8,533	4,289	75,433	16,666
BERKSHIRE	132,486	27,031	23,508	2,290	10,013	4,660	2,120	38,498	8,553
BRISTOL	548,176	128,046	74,368	10,845	40,228	17,806	7,288	139,278	30,334
DUKES	15,669	3,208	2,266	272	1,188	544	233	4,717	972
ESSEX	738,984	182,261	99,278	15,438	53,240	23,809	9,886	187,705	41,198
HAMPDEN	461,844	113,454	64,426	9,610	33,314	14,862	6,197	115,934	25,633
HAMPSHIRE	153,894	26,971	18,632	2,284	12,222	5,222	1,965	37,453	8,390
MIDDLESEX	1,464,628	323,686	187,076	27,416	109,455	47,953	19,080	369,133	80,341
NORFOLK	653,617	150,507	92,569	12,748	48,061	21,636	9,112	174,348	37,816
PLYMOUTH	490,655	123,849	57,641	10,490	35,170	15,534	6,200	120,360	26,348
SUFFOLK	666,022	135,376	74,180	11,466	51,291	21,254	7,560	150,762	32,354
WORCESTER	779,488	190,208	96,527	16,111	56,527	24,784	9,869	190,002	41,572
TOTALS	**6,334,146**	**1,447,273**	**843,308**	**122,585**	**468,210**	**206,597**	**83,799**	**1,603,623**	**350,177**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Massachusetts
460 Totten Pond Road, Suite 400
Waltham, MA 02451
(781) 890-4262 www.lungusa.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BARNSTABLE	15	5	0	7.5	F
BERKSHIRE	7	0	0	2.3	D
BRISTOL	12	2	0	5.0	F
DUKES	*	*	*	*	*
ESSEX	15	3	1	7.2	F
HAMPDEN	10	4	0	5.3	F
HAMPSHIRE	11	2	0	4.7	F
MIDDLESEX	6	3	0	3.5	F
NORFOLK	19	4	1	9.0	F
PLYMOUTH	DNC	DNC	DNC	DNC	DNC
SUFFOLK	10	1	1	4.5	F
WORCESTER	8	1	0	3.2	D

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BARNSTABLE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BERKSHIRE	0	1	0	0.5	B	*	INC
BRISTOL	1	1	0	0.8	B	*	INC
DUKES	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ESSEX	7	0	0	2.3	D	*	INC
HAMPDEN	14	2	0	5.7	F	12.8	PASS
HAMPSHIRE	*	*	*	*	*	*	INC
MIDDLESEX	*	*	*	*	*	*	INC
NORFOLK	*	*	*	*	*	*	INC
PLYMOUTH	4	0	0	1.3	C	10.5	PASS
SUFFOLK	13	0	0	4.3	F	13.0	PASS
WORCESTER	6	1	0	2.5	D	*	INC

Ozone
- Berkshire and Worcester Counties each improved their grades from an F to a D.
- Norfolk County now has enough data to receive a grade.
- Dukes County now has ozone monitors, but not enough data to grade.

PM
- Hampden and Suffolk Counties now have sufficient data to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

MICHIGAN

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ALLEGAN	112,477	29,866	12,619	2,530	6,844	3,460	1,350	27,184	5,752
ALPENA	30,739	6,595	5,527	559	2,002	1,074	495	9,237	1,992
BAY	109,480	25,446	16,441	2,155	6,973	3,658	1,586	30,519	6,531
BENZIE	17,466	3,870	3,186	328	1,125	602	278	5,176	1,111
BERRIEN	163,125	40,814	23,921	3,457	10,139	5,306	2,291	44,017	9,425
CASS	51,761	12,171	7,331	1,031	3,290	1,720	735	14,252	3,057
CHIPPEWA	38,791	7,552	5,094	640	2,578	1,300	509	10,158	2,139
CLINTON	68,800	17,498	7,698	1,482	4,262	2,167	854	17,196	3,655
GENESEE	443,947	118,061	52,586	10,000	27,011	13,765	5,501	109,727	23,257
GRAND TRAVERSE	82,752	18,984	11,148	1,608	5,287	2,725	1,125	22,091	4,706
HURON	34,948	7,698	6,933	652	2,257	1,231	592	10,826	2,343
INGHAM	280,073	64,201	27,120	5,438	17,804	8,700	3,066	63,636	13,377
KALAMAZOO	240,724	56,732	27,647	4,805	15,197	7,605	2,897	58,338	12,334
KENT	593,898	163,694	61,282	13,865	35,553	17,709	6,631	135,553	28,465
LEELANAU	22,163	4,725	4,110	400	1,451	790	375	6,934	1,507
LENAWEE	101,768	24,668	13,094	2,089	6,391	3,279	1,337	26,355	5,613

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Michigan
25900 Greenfield Road, Suite 401
Oak Park, MI 48237-1267
(248) 784-2000 www.alam.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALLEGAN	21	6	0	10.0	F
ALPENA	DNC	DNC	DNC	DNC	DNC
BAY	DNC	DNC	DNC	DNC	DNC
BENZIE	12	1	0	4.5	F
BERRIEN	18	1	0	6.5	F
CASS	27	2	0	10.0	F
CHIPPEWA	DNC	DNC	DNC	DNC	DNC
CLINTON	8	0	0	2.7	D
GENESEE	15	0	0	5.0	F
GRAND TRAVERSE	DNC	DNC	DNC	DNC	DNC
HURON	11	0	0	3.7	F
INGHAM	10	0	0	3.3	F
KALAMAZOO	13	0	0	4.3	F
KENT	13	1	0	4.8	F
LEELANAU	*	*	*	*	*
LENAWEE	16	1	0	5.8	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALLEGAN	8	0	0	2.7	D	12.0	PASS
ALPENA	*	*	*	*	*	*	INC
BAY	0	0	0	0.0	A	10.7	PASS
BENZIE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BERRIEN	3	0	0	1.0	C	11.7	PASS
CASS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHIPPEWA	2	0	0	0.7	B	7.9	PASS
CLINTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GENESEE	0	0	0	0.0	A	11.7	PASS
GRAND TRAVERSE	*	*	*	*	*	*	INC
HURON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
INGHAM	0	0	0	0.0	A	12.5	PASS
KALAMAZOO	2	0	0	0.7	B	13.4	PASS
KENT	11	0	0	3.7	F	13.0	PASS
LEELANAU	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LENAWEE	DNC	DNC	DNC	DNC	DNC	DNC	DNC

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

MICHIGAN

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
MACOMB	822,660	193,865	110,188	16,420	52,038	26,695	10,930	215,443	45,599
MASON	29,074	6,401	5,068	542	1,880	1,005	459	8,611	1,854
MISSAUKEE	15,286	3,708	2,294	314	958	500	215	4,130	883
MONROE	152,552	38,204	17,432	3,236	9,489	4,818	1,897	38,163	8,093
MUSKEGON	174,401	45,598	22,024	3,862	10,660	5,451	2,210	43,613	9,255
OAKLAND	1,213,339	297,292	139,895	25,181	76,118	38,802	15,407	310,003	65,795
OTTAWA	252,351	67,583	26,517	5,724	15,261	7,595	2,841	57,699	12,177
SAGINAW	209,062	53,193	28,362	4,505	12,922	6,694	2,808	54,662	11,672
SAINT CLAIR	170,916	42,507	20,939	3,600	10,645	5,434	2,182	43,422	9,213
SCHOOLCRAFT	8,874	1,854	1,676	157	582	314	147	2,728	589
WASHTENAW	339,191	73,943	28,673	6,263	21,883	10,551	3,532	75,503	15,741
WAYNE	2,016,202	559,268	234,849	47,370	120,639	61,309	24,356	486,553	102,901
TOTALS	**7,796,820**	**1,985,991**	**923,654**	**168,213**	**481,239**	**244,259**	**96,606**	**1,931,729**	**409,036**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Michigan
25900 Greenfield Road, Suite 401
Oak Park, MI 48237-1267
(248) 784-2000 www.alam.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
MACOMB	21	4	0	9.0	F
MASON	12	1	0	4.5	F
MISSAUKEE	2	0	0	0.7	B
MONROE	DNC	DNC	DNC	DNC	DNC
MUSKEGON	8	4	0	4.7	F
OAKLAND	17	1	0	6.2	F
OTTAWA	15	0	0	5.0	F
SAGINAW	DNC	DNC	DNC	DNC	DNC
SAINT CLAIR	18	2	0	7.0	F
SCHOOLCRAFT	4	1	0	1.8	C
WASHTENAW	13	1	0	4.8	F
WAYNE	17	0	0	5.7	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
MACOMB	1	0	0	0.3	B	12.7	PASS
MASON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MISSAUKEE	*	*	*	*	*	*	INC
MONROE	4	0	0	1.3	C	14.3	PASS
MUSKEGON	2	0	0	0.7	B	11.5	PASS
OAKLAND	3	0	0	1.0	C	*	INC
OTTAWA	4	0	0	1.3	C	12.5	PASS
SAGINAW	0	0	0	0.0	A	10.3	PASS
SAINT CLAIR	2	1	0	1.2	C	13.4	PASS
SCHOOLCRAFT	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WASHTENAW	1	0	0	0.3	B	14.1	PASS
WAYNE	25	1	0	8.8	F	18.6	FAIL

Ozone
- Clinton County's grade improved from an F to a D.
- Missaukee County's grade improved from a C to a B.
- Schoolcraft County now has enough data to receive a grade.

PM
- Allegan County's grade improved from an F to a D.
- Bay, Genesee, Ingham and Saginaw Counties each improved their grade from a B to an A.
- Kalamazoo, Macomb and Washtenaw Counties each improved their grade from a C to a B.
- Monroe and Saint Clair Counties each improved their grade from a D to a C.
- Monroe County's grade improved from failing to passing.
- Schoolcraft County now has PM monitors, but not enough data to grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

MINNESOTA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ANOKA	319,950	85,834	25,251	7,270	17,442	9,476	3,279	70,317	14,652
CARLTON	33,639	7,539	4,925	639	1,929	1,119	472	9,151	1,948
CASS	28,460	6,274	5,087	531	1,626	987	456	8,493	1,832
CROW WING	59,431	13,475	10,205	1,141	3,389	2,012	905	17,025	3,641
DAKOTA	379,058	103,085	29,828	8,731	20,545	11,189	3,886	83,204	17,362
GOODHUE	45,496	10,567	6,806	895	2,575	1,511	650	12,484	2,672
HENNEPIN	1,120,897	263,287	122,169	22,300	63,707	35,559	13,474	275,499	57,932
LAKE	11,218	2,173	2,345	184	661	410	199	3,630	786
MILLE LACS	25,079	5,980	3,817	507	1,415	819	350	6,721	1,429
OLMSTED	133,283	33,651	14,929	2,850	7,404	4,143	1,592	32,303	6,794
RAMSEY	499,498	124,154	60,617	10,516	27,870	15,727	6,209	123,752	26,195
SAINT LOUIS	198,136	39,627	31,044	3,356	11,684	6,860	2,953	56,446	12,137
SCOTT	114,794	33,136	6,797	2,807	6,153	3,178	975	22,107	4,498
STEARNS	141,055	32,818	15,981	2,780	8,108	4,417	1,641	33,200	6,988
WASHINGTON	216,660	58,005	18,213	4,913	11,756	6,523	2,346	49,495	10,412
WRIGHT	106,889	29,817	9,021	2,525	5,774	3,095	1,070	22,771	4,719
TOTALS	**3,433,543**	**849,422**	**367,035**	**71,945**	**192,038**	**107,025**	**40,457**	**826,598**	**173,997**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Minnesota
490 Concordia Avenue
St. Paul, MN 55103-2441
(651) 227-8014 www.alamn.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ANOKA	1	0	0	0.3	B
CARLTON	0	0	0	0.0	A
CASS	DNC	DNC	DNC	DNC	DNC
CROW WING	*	*	*	*	*
DAKOTA	1	0	0	0.3	B
GOODHUE	*	*	*	*	*
HENNEPIN	DNC	DNC	DNC	DNC	DNC
LAKE	0	0	0	0.0	A
MILLE LACS	1	0	0	0.3	B
OLMSTED	*	*	*	*	*
RAMSEY	DNC	DNC	DNC	DNC	DNC
SAINT LOUIS	0	0	0	0.0	A
SCOTT	0	0	0	0.0	A
STEARNS	*	*	*	*	*
WASHINGTON	1	0	0	0.3	B
WRIGHT	*	*	*	*	*

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ANOKA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CARLTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CASS	*	*	*	*	*	*	INC
CROW WING	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DAKOTA	0	0	0	0.0	A	9.1	PASS
GOODHUE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HENNEPIN	0	0	0	0.0	A	9.8	PASS
LAKE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MILLE LACS	0	0	0	0.0	A	6.6	PASS
OLMSTED	0	0	0	0.0	A	9.8	PASS
RAMSEY	0	0	0	0.0	A	11.3	PASS
SAINT LOUIS	1	0	0	0.3	B	7.6	PASS
SCOTT	0	0	0	0.0	A	9.1	PASS
STEARNS	0	0	0	0.0	A	8.8	PASS
WASHINGTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WRIGHT	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Scott County now has enough data to receive a grade.
- Washington County's grade improved from a C to a D.
- Crow Wing County now has ozone monitors, but not enough data to grade.

PM
- Hennepin and Mille Lacs Counties each improved their grade from a B to an A.
- Ramsey County's grade improved from a C to an A.
- Cass County now has ozone monitors, but not enough data to grade.
- Crow Wing, Douglas, Freeborn, Itasca, Kandiyohi and Nicollet Counties no longer have PM monitors.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

MISSISSIPPI

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ADAMS	32,591	8,202	5,189	695	1,725	1,078	486	9,176	1,978
ALCORN	35,230	8,109	5,275	687	1,919	1,170	501	9,674	2,061
BOLIVAR	38,928	10,698	4,103	906	2,001	1,162	437	8,856	1,869
DESOTO	130,587	35,153	11,890	2,977	6,770	3,888	1,395	29,280	6,106
FORREST	74,469	17,721	8,460	1,501	4,019	2,302	849	17,240	3,602
HANCOCK	45,933	10,728	6,802	909	2,491	1,527	657	12,681	2,710
HARRISON	192,393	49,422	22,499	4,186	10,129	5,973	2,336	46,793	9,891
HINDS	249,987	67,070	26,781	5,681	12,965	7,573	2,877	58,352	12,311
JACKSON	135,436	34,991	15,258	2,964	7,120	4,216	1,649	33,246	7,033
JONES	65,662	16,162	9,279	1,369	3,502	2,111	883	17,129	3,642
LAUDERDALE	77,449	20,034	10,842	1,697	4,062	2,452	1,029	19,924	4,240
LEE	78,102	20,783	9,183	1,760	4,061	2,408	953	19,071	4,029
LOWNDES	60,487	16,533	7,107	1,400	3,114	1,846	732	14,590	3,089
MADISON	81,973	22,140	8,286	1,875	4,242	2,460	915	18,802	3,944
MARSHALL	35,498	8,990	3,990	761	1,879	1,104	425	8,585	1,814
PEARL RIVER	51,835	12,992	6,691	1,100	2,751	1,652	676	13,291	2,829
RANKIN	128,380	31,029	12,887	2,628	6,905	3,997	1,469	30,493	6,381
SCOTT	28,656	7,724	3,639	654	1,482	885	360	7,081	1,501
WARREN	49,113	13,356	5,674	1,131	2,534	1,517	609	12,147	2,583
TOTALS	**1,592,709**	**411,837**	**183,835**	**34,881**	**83,671**	**49,321**	**19,238**	**386,411**	**81,613**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Mississippi
P.O. Box 2178
Ridgeland, MS 39158-2178
(601) 206-5810 www.lungusa.org/mississippi

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ADAMS	3	0	0	1.0	C
ALCORN	*	*	*	*	*
BOLIVAR	1	0	0	0.3	B
DESOTO	9	0	0	3.0	D
FORREST	DNC	DNC	DNC	DNC	DNC
HANCOCK	7	0	0	2.3	D
HARRISON	7	0	0	2.3	D
HINDS	2	0	0	0.7	B
JACKSON	5	0	0	1.7	C
JONES	DNC	DNC	DNC	DNC	DNC
LAUDERDALE	1	0	0	0.3	B
LEE	1	0	0	0.3	B
LOWNDES	DNC	DNC	DNC	DNC	DNC
MADISON	1	0	0	0.3	B
MARSHALL	*	*	*	*	*
PEARL RIVER	DNC	DNC	DNC	DNC	DNC
RANKIN	DNC	DNC	DNC	DNC	DNC
SCOTT	DNC	DNC	DNC	DNC	DNC
WARREN	0	0	0	0.0	A

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS	0	0	0	0.0	A	10.9	PASS
ALCORN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BOLIVAR	1	0	0	0.3	B	12.1	PASS
DESOTO	0	0	0	0.0	A	12.2	PASS
FORREST	0	0	0	0.0	A	13.0	PASS
HANCOCK	1	0	0	0.3	B	10.3	PASS
HARRISON	1	0	0	0.3	B	11.6	PASS
HINDS	1	0	0	0.3	B	*	INC
JACKSON	1	0	0	0.3	B	11.7	PASS
JONES	0	0	0	0.0	A	14.1	PASS
LAUDERDALE	1	0	0	0.3	B	*	INC
LEE	0	0	0	0.0	A	12.0	PASS
LOWNDES	2	0	0	0.7	B	12.7	PASS
MADISON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MARSHALL	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PEARL RIVER	1	0	0	0.3	B	11.7	PASS
RANKIN	1	0	0	0.3	B	12.6	PASS
SCOTT	1	0	0	0.3	B	*	INC
WARREN	1	0	0	0.3	B	11.8	PASS

Ozone
- Marshall County now has ozone monitors, but not enough data to grade.

PM
- The grades for Hancock, Jackson and Pearl River Counties dropped from an A to a B.
- Harrison and Lowndes Counties each improved their grade from a C to a B.
- Jones and Lee Counties each improved their grade from a B to an A.
- Grenada County now has PM monitors, but not enough data to grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

MISSOURI

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BOONE	141,367	31,037	12,549	2,629	10,166	4,369	1,463	31,024	6,464
BUCHANAN	84,825	19,789	12,368	1,676	5,920	2,767	1,157	22,380	4,755
CASS	91,593	23,786	10,589	2,015	6,203	2,841	1,114	22,375	4,727
CEDAR	13,894	3,148	2,853	267	967	487	238	4,319	935
CLAY	197,588	49,289	21,066	4,175	13,597	6,148	2,328	47,622	10,012
CLINTON	20,683	4,908	2,903	416	1,437	675	282	5,495	1,170
GREENE	247,932	53,179	33,830	4,504	17,775	8,173	3,284	64,661	13,678
JACKSON	660,095	167,286	80,890	14,169	45,031	20,751	8,282	165,032	34,883
JASPER	109,460	27,756	14,572	2,351	7,451	3,450	1,407	27,595	5,841
JEFFERSON	210,397	53,295	20,167	4,514	14,432	6,476	2,385	49,559	10,414
MARIES	8,877	2,087	1,335	177	617	295	127	2,446	523
MERCER	3,618	777	741	66	256	129	62	1,138	246
MONROE	9,467	2,235	1,664	189	654	320	147	2,735	588
PERRY	18,289	4,347	2,796	368	1,267	601	259	4,963	1,058
PLATTE	80,967	19,501	7,579	1,652	5,650	2,546	939	19,594	4,129
SAINT CHARLES	320,734	84,364	30,490	7,146	21,715	9,693	3,541	73,607	15,435
SAINT LOUIS	1,009,235	237,672	141,892	20,131	70,270	33,289	14,083	273,624	58,501
SAINT LOUIS CITY	343,279	87,005	42,539	7,369	23,416	10,709	4,235	84,298	17,765
SAINTE GENEVIEVE	18,264	4,259	2,627	361	1,275	603	255	4,942	1,055
TOTALS	**3,590,564**	**875,720**	**443,450**	**74,175**	**248,099**	**114,322**	**45,588**	**907,409**	**192,179**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Missouri
1118 Hampton Avenue
St. Louis, MO 63139-3196
(314) 645-5505 www.lungusa.org/missouri

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BOONE	DNC	DNC	DNC	DNC	DNC
BUCHANAN	DNC	DNC	DNC	DNC	DNC
CASS	2	0	0	0.7	B
CEDAR	3	0	0	1.0	C
CLAY	23	0	0	7.7	F
CLINTON	*	*	*	*	*
GREENE	2	0	0	0.7	B
JACKSON	DNC	DNC	DNC	DNC	DNC
JASPER	DNC	DNC	DNC	DNC	DNC
JEFFERSON	15	1	0	5.5	F
MARIES	DNC	DNC	DNC	DNC	DNC
MERCER	DNC	DNC	DNC	DNC	DNC
MONROE	5	0	0	1.7	C
PERRY	*	*	*	*	*
PLATTE	5	0	0	1.7	C
SAINT CHARLES	29	2	0	10.7	F
SAINTE GENEVIEVE	11	0	0	3.7	F
SAINT LOUIS	22	6	0	10.3	F
SAINT LOUIS CITY	18	4	0	8.0	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BOONE	0	0	0	0.0	A	*	INC
BUCHANAN	1	0	0	0.3	B	*	INC
CASS	1	0	0	0.3	B	*	INC
CEDAR	0	0	0	0.0	A	11.0	PASS
CLAY	1	0	0	0.3	B	11.2	PASS
CLINTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GREENE	0	0	0	0.0	A	11.8	PASS
JACKSON	0	1	0	0.5	B	*	INC
JASPER	1	0	0	0.3	B	*	INC
JEFFERSON	5	1	0	2.2	D	13.9	PASS
MARIES	0	0	0	0.0	A	*	INC
MERCER	0	0	0	0.0	A	*	INC
MONROE	0	0	0	0.0	A	10.6	PASS
PERRY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PLATTE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SAINT CHARLES	1	0	0	0.3	B	13.3	PASS
SAINTE GENEVIEVE	2	0	0	0.7	B	13.2	PASS
SAINT LOUIS	1	0	0	0.3	B	13.5	PASS
SAINT LOUIS CITY	8	2	0	3.7	F	14.6	PASS

Ozone
- Cedar County's grade dropped from a B to a C.
- Greens County's grade improved from a C to a B.
- Platte County's grade improved from a D to a C.
- Clinton and Perry Counties now have ozone monitors, but not enough data to grade.

PM
- Boone and Mercer Counties now have enough data to receive a grade.
- Maries County's grade improved from an F to an A.
- Buchanan, Jackson and Jasper Counties no longer have sufficient data to grade their annual levels.
- Saint Louis City's grade improved from failing to passing.
- Cooper, Howell and Stoddard Counties no longer have PM monitors.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

MONTANA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
CASCADE	79,849	18,967	11,667	1,607	5,253	2,630	1,124	21,691	4,637
FLATHEAD	81,217	18,428	10,627	1,561	5,380	2,713	1,131	22,257	4,771
GALLATIN	75,637	15,208	6,564	1,288	5,127	2,420	822	17,573	3,664
LAKE	27,919	6,827	4,137	578	1,820	921	401	7,669	1,653
LEWIS AND CLARK	57,972	12,854	7,075	1,089	3,855	1,937	788	15,675	3,362
LINCOLN	19,101	4,042	3,262	342	1,302	679	315	5,899	1,284
MISSOULA	99,018	20,153	10,046	1,707	6,712	3,237	1,181	24,492	5,159
RAVALLI	39,376	8,721	6,136	739	2,644	1,358	606	11,542	2,496
ROSEBUD	9,270	2,737	929	232	556	281	112	2,250	487
SANDERS	10,945	2,159	2,015	183	762	400	189	3,510	766
SILVER BOW	33,093	7,057	5,472	598	2,254	1,146	512	9,697	2,086
YELLOWSTONE	134,717	31,302	18,039	2,651	8,886	4,425	1,830	35,929	7,658
TOTALS	**668,114**	**148,455**	**85,969**	**12,575**	**44,551**	**22,147**	**9,011**	**178,184**	**38,023**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of the Northern Rockies
825 Helena Avenue
Helena, MT 59601-3459
(406) 442-6556 www.lungusa.org/northernrockies

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
CASCADE	DNC	DNC	DNC	DNC	DNC
FLATHEAD	0	0	0	0.0	A
GALLATIN	DNC	DNC	DNC	DNC	DNC
LAKE	DNC	DNC	DNC	DNC	DNC
LEWIS AND CLARK	DNC	DNC	DNC	DNC	DNC
LINCOLN	DNC	DNC	DNC	DNC	DNC
MISSOULA	*	*	*	*	*
RAVALLI	DNC	DNC	DNC	DNC	DNC
ROSEBUD	DNC	DNC	DNC	DNC	DNC
SANDERS	DNC	DNC	DNC	DNC	DNC
SILVER BOW	DNC	DNC	DNC	DNC	DNC
YELLOWSTONE	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
CASCADE	3	0	0	1.0	C	5.7	PASS
FLATHEAD	8	2	0	3.7	F	10.7	PASS
GALLATIN	1	0	0	0.3	B	*	INC
LAKE	3	3	0	2.5	D	8.9	PASS
LEWIS AND CLARK	7	1	0	2.8	D	*	INC
LINCOLN	7	0	0	2.3	D	15.2	FAIL
MISSOULA	6	3	0	3.5	F	*	INC
RAVALLI	5	2	0	2.7	D	*	INC
ROSEBUD	0	0	0	0.0	A	6.4	PASS
SANDERS	0	0	0	0.0	A	6.6	PASS
SILVER BOW	4	0	0	1.3	C	8.3	PASS
YELLOWSTONE	0	0	1	0.7	B	*	INC

Ozone
- No changes occurred in ozone grades or monitors.

PM
- The grades for Gallatin and Yellowstone Counties dropped from an A to a B.
- Lincoln County's grade improved from an F to a D.
- Ravalli County's grade dropped from a C to a D.
- Sanders County's grade improved from a B to an A.
- Silver Bow County's grade dropped from a B to a C.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

NEBRASKA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
CASS	25,671	6,476	3,148	549	1,335	815	330	6,548	1,392
CEDAR	9,059	2,335	1,790	198	464	305	149	2,689	584
CHERRY	6,071	1,470	1,054	125	319	205	94	1,760	380
DEUEL	2,019	404	440	34	112	74	37	665	145
DOUGLAS	482,112	125,719	51,403	10,648	24,782	14,720	5,556	113,442	23,819
HALL	54,862	14,594	7,482	1,236	2,794	1,722	722	14,037	2,984
LANCASTER	261,545	60,091	26,968	5,090	14,000	8,177	2,953	61,140	12,771
LINCOLN	34,979	8,510	5,209	721	1,837	1,149	497	9,538	2,041
SARPY	135,973	38,983	10,086	3,302	6,759	3,865	1,290	27,968	5,782
SCOTTS BLUFF	36,631	8,957	6,187	759	1,915	1,219	553	10,373	2,229
WASHINGTON	19,605	4,707	2,565	399	1,036	635	261	5,118	1,093
TOTALS	**1,068,527**	**272,246**	**116,332**	**23,061**	**55,353**	**32,886**	**12,442**	**253,278**	**53,220**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Nebraska
7101 Newport Avenue, #303
Omaha, NE 68152-2167
(402) 572-3030 www.lungnebraska.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
CASS	DNC	DNC	DNC	DNC	DNC
CEDAR	DNC	DNC	DNC	DNC	DNC
CHERRY	DNC	DNC	DNC	DNC	DNC
DEUEL	DNC	DNC	DNC	DNC	DNC
DOUGLAS	0	0	0	0.0	A
HALL	DNC	DNC	DNC	DNC	DNC
LANCASTER	0	0	0	0.0	A
LINCOLN	DNC	DNC	DNC	DNC	DNC
SARPY	DNC	DNC	DNC	DNC	DNC
SCOTTS BLUFF	DNC	DNC	DNC	DNC	DNC
WASHINGTON	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
CASS	1	0	0	0.3	B	10.0	PASS
CEDAR	*	*	*	*	*	*	INC
CHERRY	*	*	*	*	*	*	INC
DEUEL	*	*	*	*	*	*	INC
DOUGLAS	1	0	0	0.3	B	10.0	PASS
HALL	0	0	0	0.0	A	*	INC
LANCASTER	1	0	0	0.3	B	9.2	PASS
LINCOLN	0	0	0	0.0	A	7.2	PASS
SARPY	0	0	0	0.0	A	9.8	PASS
SCOTTS BLUFF	0	0	0	0.0	A	*	INC
WASHINGTON	0	0	0	0.0	A	9.3	PASS

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Douglass County's grade improved from a C to a B.
- Hall and Scott Bluff Counties no longer have sufficient data to grade.
- Washington County now has enough data to grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

NEVADA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
CARSON CITY	55,974	13,122	8,544	1,111	3,058	1,855	802	15,395	3,287
CLARK	1,650,671	432,756	177,217	36,654	86,143	50,190	18,905	386,476	80,882
DOUGLAS	45,394	9,605	7,582	814	2,597	1,598	727	13,731	2,973
WASHOE	380,754	95,322	41,924	8,074	20,363	11,917	4,592	93,189	19,675
WHITE PINE	8,539	1,842	1,339	156	477	290	125	2,399	512
TOTALS	**2,141,332**	**552,647**	**236,606**	**46,809**	**112,638**	**65,850**	**25,151**	**511,190**	**107,329**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Nevada
P.O. Box 7056
Reno, NV 89510-7056
(775) 829-5864 www.lungusa.org/idaho_nevada

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
CLARK	20	0	0	6.7	F
DOUGLAS	0	0	0	0.0	A
WASHOE	1	0	0	0.3	B
WHITE PINE	0	0	0	0.0	A
CARSON CITY	*	*	*	*	*

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
CLARK	3	1	0	1.5	C	9.3	PASS
DOUGLAS	*	*	*	*	*	*	INC
WASHOE	0	0	0	0.0	A	8.2	PASS
WHITE PINE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CARSON CITY	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Clark County's grade improved from a D to a C.
- Washoe County's grade improved from a C to an A.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

NEW HAMPSHIRE

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BELKNAP	60,858	13,005	9,042	1,102	4,835	2,081	895	17,340	3,708
CARROLL	46,762	9,601	8,379	813	3,706	1,664	770	14,433	3,114
CHESHIRE	76,872	16,298	10,495	1,380	6,163	2,581	1,060	20,694	4,437
COOS	33,511	6,860	6,044	581	2,659	1,189	549	10,270	2,214
GRAFTON	84,169	16,846	11,576	1,427	6,855	2,860	1,168	22,786	4,889
HILLSBOROUGH	398,574	100,518	42,449	8,514	30,615	12,470	4,795	97,766	20,656
MERRIMACK	145,542	33,471	17,600	2,835	11,452	4,749	1,897	37,896	8,063
ROCKINGHAM	292,526	72,281	31,129	6,122	22,586	9,316	3,639	74,104	15,729
STRAFFORD	118,217	26,617	13,297	2,254	9,426	3,776	1,423	28,825	6,089
SULLIVAN	42,469	9,497	6,661	804	3,317	1,446	638	12,205	2,617
TOTALS	**1,299,500**	**304,994**	**156,672**	**25,832**	**101,614**	**42,132**	**16,834**	**336,319**	**71,516**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of New Hampshire
9 Cedarwood Drive, Unit 12
Bedford, NH 03110-6801
(603) 669-2411 www.nhlung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BELKNAP	3	0	0	1.0	C
CARROLL	*	*	*	*	*
CHESHIRE	1	0	0	0.3	B
COOS	5	2	0	2.7	D
GRAFTON	1	0	0	0.3	B
HILLSBOROUGH	8	4	0	4.7	F
MERRIMACK	5	0	0	1.7	C
ROCKINGHAM	12	1	0	4.5	F
STRAFFORD	*	*	*	*	*
SULLIVAN	4	0	0	1.3	C

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BELKNAP	1	0	0	0.3	B	7.2	PASS
CARROLL	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHESHIRE	0	1	0	0.5	B	11.6	PASS
COOS	0	0	0	0.0	A	9.8	PASS
GRAFTON	0	0	0	0.0	A	*	INC
HILLSBOROUGH	1	1	0	0.8	B	10.3	PASS
MERRIMACK	2	0	0	0.7	B	*	INC
ROCKINGHAM	1	0	0	0.3	B	9.5	PASS
STRAFFORD	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SULLIVAN	0	1	0	0.5	B	9.8	PASS

Ozone
- Coos County's grade dropped from a C to a D.
- Strafford County no longer has enough data to receive a grade.

PM
- Coos County's grade improved from a B to an A.
- Grafton County now has enough data to receive a grade.
- Belknap, Hillsborough and Rockingham Counties now have sufficient data to grade their annual levels.
- Merrimack County does not have sufficient data to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

NEW JERSEY

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ATLANTIC	268,693	67,461	35,775	5,714	17,321	8,548	3,513	68,879	14,621
BERGEN	902,998	207,868	133,875	17,606	59,554	30,146	12,967	250,427	53,488
CAMDEN	516,282	135,208	62,718	11,452	32,848	16,101	6,462	128,354	27,231
CUMBERLAND	151,183	38,109	18,976	3,228	9,761	4,740	1,888	37,511	7,911
ESSEX	796,684	212,678	91,954	18,014	50,453	24,424	9,567	192,022	40,521
GLOUCESTER	271,806	67,084	31,307	5,682	17,680	8,583	3,355	67,448	14,292
HUDSON	606,240	140,764	67,100	11,923	40,424	18,989	7,019	144,411	30,009
HUNTERDON	129,746	31,850	14,183	2,698	8,421	4,190	1,674	33,797	7,225
MERCER	365,271	87,710	44,231	7,429	23,969	11,630	4,580	91,304	19,366
MIDDLESEX	785,095	188,275	93,552	15,947	51,606	24,850	9,657	194,164	40,892
MONMOUTH	636,298	161,959	79,410	13,718	40,772	20,316	8,346	164,883	35,184
MORRIS	488,173	121,157	59,237	10,262	31,570	15,676	6,369	126,696	27,002
OCEAN	553,251	128,397	116,654	10,875	36,038	19,099	9,321	168,424	36,202
PASSAIC	500,427	134,998	58,512	11,434	31,563	15,295	6,018	120,377	25,419
UNION	531,957	136,245	68,742	11,540	34,068	16,801	6,867	135,339	28,695
WARREN	110,018	27,762	13,680	2,351	7,082	3,495	1,418	28,114	5,972
TOTALS	**7,614,122**	**1,887,525**	**989,906**	**159,873**	**493,130**	**242,883**	**99,021**	**1,952,150**	**414,030**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of New Jersey
1600 Route 22 East
Union, NJ 07083-3410
(908) 687-9340 www.lungusa.org/newjersey

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ATLANTIC	13	2	0	5.3	F
BERGEN	22	2	0	8.3	F
CAMDEN	35	11	1	17.8	F
CUMBERLAND	23	3	0	9.2	F
ESSEX	*	*	*	*	*
GLOUCESTER	19	11	2	13.2	F
HUDSON	9	0	0	3.0	D
HUNTERDON	27	4	0	11.0	F
MERCER	25	8	0	12.3	F
MIDDLESEX	28	4	0	11.3	F
MONMOUTH	23	3	2	10.5	F
MORRIS	25	5	1	11.5	F
OCEAN	35	7	4	17.8	F
PASSAIC	16	1	0	5.8	F
UNION	DNC	DNC	DNC	DNC	DNC
WARREN	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ATLANTIC	3	1	0	1.5	C	*	INC
BERGEN	2	1	0	1.2	C	13.0	PASS
CAMDEN	3	1	0	1.5	C	*	INC
CUMBERLAND	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ESSEX	3	1	0	1.5	C	*	INC
GLOUCESTER	2	1	0	1.2	C	13.1	PASS
HUDSON	5	1	0	2.2	D	14.5	PASS
HUNTERDON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MERCER	5	1	0	2.2	D	13.2	PASS
MIDDLESEX	3	1	0	1.5	C	12.0	PASS
MONMOUTH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MORRIS	3	1	0	1.5	C	11.8	PASS
OCEAN	3	1	0	1.5	C	11.2	PASS
PASSAIC	3	1	0	1.5	C	13.1	PASS
UNION	25	1	0	8.8	F	15.4	FAIL
WARREN	3	1	0	1.5	C	13.0	PASS

Ozone
- Essex County no longer has enough data to receive a grade.
- Hudson County's grade improved from an F to a D.

PM
- Camden, Middlesex and Morris Counties each improved their grade from a D to a C.
- Mercer County's grade dropped from a C to a D.
- Bergen, Gloucester, Morris, Ocean and Passaic Counties now have sufficient data to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

NEW MEXICO

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BERNALILLO	593,765	144,437	69,113	12,234	41,667	18,847	7,382	148,535	31,414
CHAVES	61,635	16,401	8,850	1,389	4,206	1,946	831	15,870	3,407
DONA ANA	186,095	51,416	20,821	4,355	12,433	5,555	2,121	42,562	8,979
EDDY	51,688	13,701	7,240	1,160	3,542	1,648	708	13,638	2,926
GRANT	29,443	6,835	5,521	579	2,121	1,021	487	8,935	1,941
LEA	56,231	15,543	6,751	1,316	3,770	1,709	681	13,478	2,862
SAN JUAN	124,166	36,891	11,532	3,125	8,063	3,580	1,314	27,069	5,706
SANDOVAL	102,120	27,115	11,097	2,297	6,958	3,145	1,222	24,664	5,233
SANTA FE	138,705	30,372	16,167	2,573	10,098	4,626	1,851	37,208	7,949
VALENCIA	68,698	18,618	7,406	1,577	4,644	2,096	812	16,402	3,478
TOTALS	**1,412,546**	**361,329**	**164,498**	**30,605**	**97,502**	**44,173**	**17,409**	**348,361**	**73,895**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of New Mexico
7001 Menaul Blvd. NE, Suite 1A
Albuquerque, NM 87110
(505) 265-0732 www.lungusa.org/arizonanewmexico

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BERNALILLO	3	0	0	1.0	C
CHAVES	DNC	DNC	DNC	DNC	DNC
DONA ANA	4	0	0	1.3	C
EDDY	0	0	0	0.0	A
GRANT	DNC	DNC	DNC	DNC	DNC
LEA	*	*	*	*	*
SANDOVAL	0	0	0	0.0	A
SAN JUAN	0	0	0	0.0	A
SANTA FE	DNC	DNC	DNC	DNC	DNC
VALENCIA	*	*	*	*	*

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BERNALILLO	1	1	0	0.8	B	6.7	PASS
CHAVES	0	0	0	0.0	A	6.6	PASS
DONA ANA	3	0	0	1.0	C	11.2	PASS
EDDY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GRANT	0	0	0	0.0	A	6.2	PASS
LEA	0	0	0	0.0	A	6.8	PASS
SANDOVAL	0	0	0	0.0	A	5.0	PASS
SAN JUAN	0	0	0	0.0	A	6.6	PASS
SANTA FE	0	0	0	0.0	A	5.0	PASS
VALENCIA	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Valencia County no longer has enough data to receive a grade.
- Lea County now has ozone monitors, but not enough data to receive a grade.

PM
- Bernalillo County's grade dropped from an A to a B.
- Sandoval County's grade improved from a B to an A.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

NEW YORK

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ALBANY	298,432	63,770	41,359	5,401	20,846	9,946	4,067	79,450	16,941
BRONX	1,365,536	403,448	137,313	34,172	85,512	39,248	14,478	297,183	62,005
BROOME	197,696	42,653	32,362	3,613	13,694	6,721	2,941	55,621	11,944
CHAUTAUQUA	137,267	31,008	21,578	2,626	9,409	4,606	2,003	38,107	8,179
CHEMUNG	89,984	20,785	13,917	1,760	6,133	2,999	1,301	24,897	5,323
DUTCHESS	293,395	68,937	35,385	5,839	20,037	9,427	3,717	74,257	15,757
ERIE	936,318	215,123	145,914	18,221	63,908	31,292	13,614	260,173	55,643
ESSEX	38,901	7,772	6,303	658	2,759	1,351	589	11,262	2,405
FRANKLIN	51,009	10,367	6,547	878	3,612	1,694	663	13,273	2,796
HAMILTON	5,227	912	1,043	77	383	197	95	1,746	379
HERKIMER	63,858	14,201	10,337	1,203	4,400	2,169	958	18,224	3,901
JEFFERSON	111,467	28,268	13,208	2,394	7,365	3,423	1,308	26,342	5,509
KINGS	2,475,290	649,220	295,102	54,989	162,242	76,108	29,809	597,418	125,566
MADISON	70,407	15,707	8,970	1,330	4,878	2,308	924	18,119	3,893
MONROE	735,177	178,227	96,432	15,096	49,621	23,696	9,707	190,567	40,611
NASSAU	1,339,641	318,463	198,222	26,974	90,928	44,432	19,227	370,338	79,273

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of New York State
3 Winners Circle, Suite 300
Albany, NY 12205-2804
(518) 453-0172 www.alanys.org

American Lung Association of the City of New York
432 Park Avenue South, 8th Floor
New York, NY 10016-8013
(212) 889-3370 www.lungusa.org/newyork

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALBANY	9	1	0	3.5	F
BRONX	9	1	0	3.5	F
BROOME	DNC	DNC	DNC	DNC	DNC
CHAUTAUQUA	32	3	0	12.2	F
CHEMUNG	5	0	0	1.7	C
DUTCHESS	4	4	1	4.0	F
ERIE	23	5	0	10.2	F
ESSEX	18	1	0	6.5	F
FRANKLIN	*	*	*	*	*
HAMILTON	6	0	0	2.0	C
HERKIMER	3	0	0	1.0	C
JEFFERSON	19	5	0	8.8	F
KINGS	DNC	DNC	DNC	DNC	DNC
MADISON	7	0	0	2.3	D
MONROE	13	2	0	5.3	F
NASSAU	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALBANY	3	1	0	1.5	C	*	INC
BRONX	17	1	0	6.2	F	15.4	FAIL
BROOME	*	*	*	*	*	*	INC
CHAUTAUQUA	2	0	0	0.7	B	10.2	PASS
CHEMUNG	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DUTCHESS	*	*	*	*	*	*	INC
ERIE	4	0	0	1.3	C	13.4	PASS
ESSEX	2	0	0	0.7	B	*	INC
FRANKLIN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HAMILTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HERKIMER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JEFFERSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KINGS	4	1	0	1.8	C	14.4	PASS
MADISON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MONROE	3	0	0	1.0	C	*	INC
NASSAU	2	1	0	1.2	C	11.9	PASS

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
NEW YORK	1,562,723	269,996	195,325	22,869	114,728	53,057	19,999	408,564	84,923
NIAGARA	218,060	50,108	33,025	4,244	14,916	7,280	3,144	60,362	12,916
ONEIDA	234,962	52,575	37,341	4,453	16,132	7,898	3,436	65,535	14,004
ONONDAGA	459,805	112,192	62,825	9,503	30,892	14,823	6,147	119,733	25,531
ORANGE	370,352	100,828	36,566	8,540	24,133	11,119	4,140	85,163	17,924
OSWEGO	123,776	29,795	14,220	2,524	8,393	3,922	1,520	30,506	6,477
PUTNAM	100,570	24,918	10,160	2,111	6,830	3,185	1,224	25,129	5,327
QUEENS	2,237,216	499,028	290,901	42,268	154,394	72,887	29,023	578,981	121,683
RENSSELAER	154,077	34,944	20,049	2,960	10,617	5,044	2,040	40,291	8,568
RICHMOND	463,314	112,498	53,970	9,529	31,355	14,715	5,763	116,234	24,526
SAINT LAWRENCE	111,306	23,808	14,795	2,017	7,765	3,668	1,463	28,645	6,120
SARATOGA	212,706	48,845	25,212	4,137	14,665	6,898	2,717	54,656	11,570
SCHENECTADY	148,042	34,609	23,276	2,931	10,050	4,936	2,162	41,205	8,821
STEUBEN	98,814	23,614	14,820	2,000	6,685	3,269	1,418	27,236	5,828
SUFFOLK	1,475,488	371,666	177,958	31,480	98,623	46,659	18,663	372,562	78,932
ULSTER	181,779	39,533	24,138	3,348	12,705	6,066	2,483	48,982	10,433
WAYNE	93,861	23,675	11,850	2,005	6,277	3,001	1,232	24,320	5,183
WESTCHESTER	942,444	233,570	129,617	19,783	63,132	30,467	12,805	249,723	53,191
TOTALS	**17,398,900**	**4,155,063**	**2,240,040**	**351,933**	**1,178,019**	**558,511**	**224,780**	**4,454,804**	**942,082**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of New York State
3 Winners Circle, Suite 300
Albany, NY 12205-2804
(518) 453-0172 www.alanys.org

American Lung Association of the City of New York
432 Park Avenue South, 8th Floor
New York, NY 10016-8013
(212) 889-3370 www.lungusa.org/newyork

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
NEW YORK	DNC	DNC	DNC	DNC	DNC
NIAGARA	20	2	0	7.7	F
ONEIDA	7	0	0	2.3	D
ONONDAGA	11	0	0	3.7	F
ORANGE	9	1	0	3.5	F
OSWEGO	3	2	0	2.0	C
PUTNAM	19	3	0	7.8	F
QUEENS	11	0	0	3.7	F
RENSSELAER	17	3	0	7.2	F
RICHMOND	21	5	0	9.5	F
SAINT LAWRENCE	DNC	DNC	DNC	DNC	DNC
SARATOGA	13	0	0	4.3	F
SCHENECTADY	4	1	0	1.8	C
STEUBEN	DNC	DNC	DNC	DNC	DNC
SUFFOLK	19	7	1	10.5	F
ULSTER	4	0	0	1.3	C
WAYNE	12	0	0	4.0	F
WESTCHESTER	17	2	0	6.7	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
NEW YORK	8	1	0	3.2	D	16.8	FAIL
NIAGARA	1	0	0	0.3	B	11.6	PASS
ONEIDA	*	*	*	*	*	*	INC
ONONDAGA	3	0	0	1.0	C	10.3	PASS
ORANGE	1	1	0	0.8	B	11.2	PASS
OSWEGO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PUTNAM	DNC	DNC	DNC	DNC	DNC	DNC	DNC
QUEENS	12	1	0	4.5	F	12.9	PASS
RENSSELAER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
RICHMOND	4	1	0	1.8	C	11.7	PASS
SAINT LAWRENCE	4	0	0	1.3	C	8.2	PASS
SARATOGA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SCHENECTADY	*	*	*	*	*	*	INC
STEUBEN	6	0	0	2.0	C	9.6	PASS
SUFFOLK	1	1	0	0.8	B	11.5	PASS
ULSTER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WAYNE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WESTCHESTER	2	1	0	1.2	C	11.9	PASS

Ozone
- Chemung, Hamilton, Schenectady and Ulster Counties each improved their grade from a D to a C.
- Oneida County's grade improved from an F to D.
- Oswego and Rensselaer Counties now have enough data to receive a grade.
- Franklin County now has ozone monitors, but not enough data to grade.
- New York County no longer has ozone monitors.

PM
- Broome, Dutchess, Oneida and Schenectady Counties do not have enough data to receive a grade.
- Chautauqua, Niagara and Suffolk Counties each improved their grade from a C to a B.
- Erie, Kings, Monroe and Richmond Counties each improved their grade from a D to a C.
- New York County's grade improved from an F to a D.
- Monroe County no longer has sufficient data to grade their annual levels.
- Onondaga and Queens Counties now have sufficient data to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

NORTH CAROLINA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ALAMANCE	138,462	33,708	18,954	2,855	7,925	4,431	1,817	35,501	7527
ALEXANDER	34,842	8,321	4,393	705	2,018	1,124	454	9,037	1,913
AVERY	17,786	3,294	2,941	279	1,095	620	265	5,075	1,079
BUNCOMBE	215,680	47,825	32,589	4,051	12,774	7,255	3,112	60,060	12,804
CABARRUS	146,135	38,398	16,022	3,252	8,155	4,464	1,703	34,667	7,269
CALDWELL	78,960	18,634	11,064	1,578	4,592	2,590	1,087	21,249	4,512
CAMDEN	8,437	1,923	1,047	163	494	273	108	2,159	454
CASWELL	23,673	5,417	3,216	459	1,393	784	327	6,420	1,366
CATAWBA	149,466	36,730	18,649	3,111	8,556	4,752	1,903	37,913	8,005
CHATHAM	57,023	12,930	8,080	1,095	3,338	1,870	772	15,143	3,194
CUMBERLAND	308,489	90,740	25,992	7,686	16,388	8,727	3,016	63,811	13,255
DAVIDSON	153,775	37,247	20,083	3,155	8,855	4,948	2,019	39,932	8,450
DAVIE	38,006	8,988	5,409	761	2,209	1,249	528	10,282	2,187
DUPLIN	51,778	13,739	6,613	1,164	2,878	1,602	647	12,786	2,696
DURHAM	239,733	58,506	22,578	4,955	13,634	7,284	2,550	53,716	11,136
EDGECOMBE	54,713	14,678	6,645	1,243	3,053	1,706	694	13,760	2,928
FORSYTH	320,919	79,466	40,127	6,731	18,311	10,167	4,068	80,795	17,094
FRANKLIN	53,520	13,303	5,582	1,127	3,041	1,652	613	12,635	2,642
GASTON	194,459	48,442	24,425	4,103	11,096	6,180	2,495	49,582	10,488

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of North Carolina
3801 Lake Boone Trail, Suite 190
Raleigh, NC 27607
(919) 832-8326 www.lungnc.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALAMANCE	DNC	DNC	DNC	DNC	DNC
ALEXANDER	18	0	0	6.0	F
AVERY	4	0	0	1.3	C
BUNCOMBE	7	0	0	2.3	D
CABARRUS	DNC	DNC	DNC	DNC	DNC
CALDWELL	13	0	0	4.3	F
CAMDEN	*	*	*	*	*
CASWELL	17	1	0	6.2	F
CATAWBA	DNC	DNC	DNC	DNC	DNC
CHATHAM	14	0	0	4.7	F
CUMBERLAND	21	1	0	7.5	F
DAVIDSON	DNC	DNC	DNC	DNC	DNC
DAVIE	24	2	0	9.0	F
DUPLIN	*	*	*	*	*
DURHAM	20	0	0	6.7	F
EDGECOMBE	20	1	0	7.2	F
FORSYTH	21	2	0	8.0	F
FRANKLIN	21	2	0	8.0	F
GASTON	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALAMANCE	1	0	0	0.3	B	13.7	PASS
ALEXANDER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
AVERY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BUNCOMBE	2	0	0	0.7	B	12.9	PASS
CABARRUS	1	0	0	0.3	B	14.5	PASS
CALDWELL	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CAMDEN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CASWELL	2	0	0	0.7	B	13.1	PASS
CATAWBA	2	0	0	0.7	B	15.1	FAIL
CHATHAM	0	0	0	0.0	A	12.0	PASS
CUMBERLAND	1	0	0	0.3	B	13.9	PASS
DAVIDSON	4	0	0	1.3	C	15.4	FAIL
DAVIE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DUPLIN	1	0	0	0.3	B	11.8	PASS
DURHAM	3	0	0	1.0	C	13.7	PASS
EDGECOMBE	1	0	0	0.3	B	*	INC
FORSYTH	4	0	0	1.3	C	14.3	PASS
FRANKLIN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GASTON	2	0	0	0.7	B	14.1	PASS

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

NORTH CAROLINA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
GRAHAM	8,075	1,763	1,456	149	482	281	130	2,428	522
GRANVILLE	52,878	12,481	5,904	1,057	3,057	1,670	633	12,917	2,707
GUILFORD	438,795	106,333	52,243	9,006	25,179	13,871	5,411	108,490	22,913
HAYWOOD	56,256	11,564	11,167	979	3,406	2,008	956	17,614	3,790
JACKSON	34,975	6,559	4,903	556	2,146	1,191	477	9,289	1,988
JOHNSTON	141,640	37,835	13,073	3,205	7,833	4,204	1,496	31,534	6,530
LENOIR	58,424	14,962	8,794	1,267	3,317	1,900	835	15,976	3,421
LINCOLN	67,952	16,818	8,062	1,424	3,890	2,155	854	17,164	3,625
MARTIN	24,796	6,108	3,966	517	1,427	823	369	6,984	1,501
MCDOWELL	43,285	9,885	6,476	837	2,538	1,438	614	11,878	2,522
MECKLENBURG	771,617	202,310	65,121	17,136	42,980	22,899	7,908	169,045	35,002
MITCHELL	15,850	3,270	2,927	277	960	561	260	4,855	1,045
MONTGOMERY	27,501	6,868	3,742	582	1,569	882	368	7,194	1,528
NASH	90,710	23,198	11,775	1,965	5,136	2,878	1,184	23,310	4,949
NEW HANOVER	173,554	36,828	22,703	3,119	10,348	5,731	2,277	45,319	9,559
NORTHAMPTON	21,624	5,002	4,009	424	1,269	745	351	6,494	1,399
ONSLOW	154,297	43,071	10,995	3,648	8,267	4,266	1,301	28,522	5,852
ORANGE	117,515	23,958	10,901	2,029	7,059	3,764	1,304	27,272	5,757
PASQUOTANK	36,806	9,009	4,901	763	2,103	1,172	476	9,337	1,980
PERSON	36,941	9,021	4,924	764	2,128	1,197	498	9,784	2,079
PITT	140,587	33,591	13,685	2,845	8,033	4,290	1,502	31,350	6,529
RANDOLPH	136,230	34,280	16,997	2,904	7,747	4,313	1,739	34,601	7,313
ROBESON	126,469	36,543	12,753	3,095	6,801	3,701	1,384	28,344	5,947
ROCKINGHAM	92,517	21,705	14,028	1,838	5,396	3,077	1,335	25,683	5,479

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of North Carolina
3801 Lake Boone Trail, Suite 190
Raleigh, NC 27607
(919) 832-8326 www.lungnc.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
GRAHAM	*	*	*	*	*
GRANVILLE	19	2	0	7.3	F
GUILFORD	18	4	0	8.0	F
HAYWOOD	19	0	0	6.3	F
JACKSON	5	0	0	1.7	C
JOHNSTON	20	1	0	7.2	F
LENOIR	8	0	0	2.7	D
LINCOLN	26	0	0	8.7	F
MC DOWELL	DNC	DNC	DNC	DNC	DNC
MARTIN	10	0	0	3.3	F
MECKLENBURG	26	8	0	12.7	F
MITCHELL	DNC	DNC	DNC	DNC	DNC
MONTGOMERY	DNC	DNC	DNC	DNC	DNC
NASH	DNC	DNC	DNC	DNC	DNC
NEW HANOVER	1	0	0	0.3	B
NORTHAMPTON	*	*	*	*	*
ONSLOW	DNC	DNC	DNC	DNC	DNC
ORANGE	DNC	DNC	DNC	DNC	DNC
PASQUOTANK	DNC	DNC	DNC	DNC	DNC
PERSON	16	3	0	6.8	F
PITT	16	0	0	5.3	F
RANDOLPH	13	0	0	4.3	F
ROBESON	DNC	DNC	DNC	DNC	DNC
ROCKINGHAM	15	3	0	6.5	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
GRAHAM	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GRANVILLE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GUILFORD	7	0	0	2.3	D	13.7	PASS
HAYWOOD	1	0	0	0.3	B	12.9	PASS
JACKSON	1	0	0	0.3	B	12.0	PASS
JOHNSTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LENOIR	0	0	0	0.0	A	11.2	PASS
LINCOLN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MC DOWELL	0	0	0	0.0	A	13.9	PASS
MARTIN	*	*	*	*	*	*	INC
MECKLENBURG	7	0	0	2.3	D	14.9	PASS
MITCHELL	0	0	0	0.0	A	12.8	PASS
MONTGOMERY	0	0	0	0.0	A	12.1	PASS
NASH	*	*	*	*	*	*	INC
NEW HANOVER	0	0	0	0.0	A	*	INC
NORTHAMPTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ONSLOW	0	0	0	0.0	A	11.2	PASS
ORANGE	0	0	0	0.0	A	13.0	PASS
PASQUOTANK	*	*	*	*	*	*	INC
PERSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PITT	1	0	0	0.3	B	12.1	PASS
RANDOLPH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ROBESON	0	0	0	0.0	A	12.6	PASS
ROCKINGHAM	DNC	DNC	DNC	DNC	DNC	DNC	DNC

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ROWAN	134,317	33,036	18,724	2,798	7,679	4,316	1,796	35,028	7,428
SWAIN	13,146	3,215	2,119	272	757	435	194	3,679	789
UNION	153,652	42,742	13,066	3,620	8,374	4,473	1,560	33,173	6,877
WAKE	719,520	186,091	54,296	15,762	40,257	21,249	7,063	153,781	31,763
WATAUGA	42,457	6,469	5,020	548	2,698	1,450	522	10,524	2,236
WAYNE	114,245	30,122	13,736	2,551	6,377	3,532	1,402	27,956	5,904
YANCEY	18,158	3,798	3,381	322	1,097	642	300	5,583	1,201
TOTALS	**6,350,645**	**1,590,724**	**700,256**	**134,732**	**360,115**	**196,792**	**74,677**	**1,519,631**	**319,134**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of North Carolina
3801 Lake Boone Trail, Suite 190
Raleigh, NC 27607
(919) 832-8326 www.lungnc.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ROWAN	32	8	0	14.7	F
SWAIN	0	0	0	0.0	A
UNION	15	3	0	6.5	F
WAKE	23	7	0	11.2	F
WATAUGA	DNC	DNC	DNC	DNC	DNC
WAYNE	DNC	DNC	DNC	DNC	DNC
YANCEY	9	0	0	3.0	D

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ROWAN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SWAIN	1	0	0	0.3	B	12.4	PASS
UNION	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WAKE	5	0	0	1.7	C	13.5	PASS
WATAUGA	1	0	0	0.3	B	11.6	PASS
WAYNE	1	0	0	0.3	B	13.1	PASS
YANCEY	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Duplin and Northampton Counties no longer have enough data to receive a grade.
- Jackson County's grade improved from a D to a C.
- Yancey County's grade improved from an F to a D.

PM
- Buncombe, Caswell and Swain Counties each improved their grade from a C to a B.
- Forsyth County's grade improved from a D to a C.
- Lenoir and Mc Dowell Counties each improved their grade from a B to an A.
- Pasquotank County no longer has enough data to receive a grade.
- Watauga County now has sufficient data to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

NORTH DAKOTA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BILLINGS	825	162	115	14	51	29	13	249	54
BURKE	2,074	356	492	30	134	81	42	747	164
BURLEIGH	72,585	15,333	9,336	1,299	4,387	2,406	956	19,056	4,030
CASS	128,615	27,569	12,298	2,335	7,701	4,054	1,408	29,797	6,172
DUNN	3,437	773	587	65	206	120	56	1,048	227
MC KENZIE	5,499	1,385	832	117	317	183	82	1,564	340
MERCER	8,434	1,893	1,234	160	503	290	128	2,456	534
OLIVER	1,875	389	259	33	114	67	30	578	127
TOTALS	**223,344**	**47,860**	**25,153**	**4,053**	**13,413**	**7,230**	**2,715**	**55,495**	**11,648**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of North Dakota
P.O. Box 5004
Bismarck, ND 58502-5004
(701) 223-5613 www.lungusa.org/northdakota

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BILLINGS	0	0	0	0.0	A
BURKE	*	*	*	*	*
BURLEIGH	DNC	DNC	DNC	DNC	DNC
CASS	0	0	0	0.0	A
DUNN	0	0	0	0.0	A
MC KENZIE	0	0	0	0.0	A
MERCER	0	0	0	0.0	A
OLIVER	0	0	0	0.0	A

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BILLINGS	0	0	0	0.0	A	4.6	PASS
BURKE	0	0	0	0.0	A	5.9	PASS
BURLEIGH	0	0	0	0.0	A	6.6	PASS
CASS	0	0	0	0.0	A	7.6	PASS
DUNN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MC KENZIE	0	0	0	0.0	A	5.3	PASS
MERCER	0	0	0	0.0	A	6.3	PASS
OLIVER	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Burke County now has ozone monitors, but not enough data to grade.

PM
- Cass County's grade improved from a B to an A.
- Mc Kenzie County now has enough data to grade.
- Grand Forks, Stark and Steele Counties now have PM monitors, but not enough data to grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

OHIO

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ALLEN	106,873	26,957	15,007	2,283	6,774	3,432	1,449	28,028	5,988
ASHTABULA	103,152	25,174	14,934	2,132	6,605	3,372	1,444	27,874	5,957
ATHENS	63,187	10,769	5,947	912	4,512	2,039	658	13,773	2,900
BUTLER	346,560	85,428	37,463	7,236	22,351	10,795	4,076	82,818	17,495
CLARK	142,613	34,454	21,353	2,918	9,150	4,705	2,042	39,178	8,393
CLERMONT	188,614	49,384	18,850	4,183	11,941	5,773	2,167	44,630	9,393
CLINTON	42,280	10,529	5,184	892	2,706	1,335	531	10,543	2,237
CUYAHOGA	1,351,009	327,852	205,816	27,769	86,470	44,413	19,309	369,684	79,015
DELAWARE	142,503	36,989	11,270	3,133	9,104	4,228	1,433	30,903	6,402
FRANKLIN	1,088,971	275,057	106,668	23,297	69,843	33,113	11,962	248,977	51,933
GEAUGA	94,602	24,029	12,556	2,035	6,000	3,083	1,318	25,656	5,524
GREENE	152,233	33,556	18,472	2,842	10,131	4,967	1,943	38,690	8,249
HAMILTON	814,611	202,699	110,223	17,169	51,954	26,082	10,801	211,000	44,886
JEFFERSON	71,420	14,415	13,279	1,221	4,784	2,547	1,186	22,050	4,759
KNOX	57,785	13,406	7,883	1,135	3,770	1,882	771	15,007	3,208
LAKE	232,061	52,676	33,546	4,462	15,212	7,774	3,320	64,409	13,768
LAWRENCE	62,705	14,460	9,084	1,225	4,089	2,075	878	17,053	3,630

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Ohio
1950 Arlingate Lane
Columbus, OH 43228-4102
(614) 279-1700 www.ohiolung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALLEN	16	1	0	5.8	F
ASHTABULA	31	5	0	12.8	F
ATHENS	DNC	DNC	DNC	DNC	DNC
BUTLER	24	6	0	11.0	F
CLARK	25	3	0	9.8	F
CLERMONT	15	2	0	6.0	F
CLINTON	25	1	0	8.8	F
CUYAHOGA	25	4	0	10.3	F
DELAWARE	20	2	0	7.7	F
FRANKLIN	30	3	1	12.2	F
GEAUGA	24	11	0	13.5	F
GREENE	18	0	0	6.0	F
HAMILTON	26	2	0	9.7	F
JEFFERSON	16	1	0	5.8	F
KNOX	18	1	0	6.5	F
LAKE	26	5	0	11.2	F
LAWRENCE	18	1	0	6.5	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALLEN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ASHTABULA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ATHENS	0	0	0	0.0	A	12.1	PASS
BUTLER	13	0	0	4.3	F	15.4	FAIL
CLARK	2	0	0	0.7	B	14.2	PASS
CLERMONT	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CLINTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CUYAHOGA	36	0	0	12.0	F	17.6	FAIL
DELAWARE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FRANKLIN	16	0	0	5.3	F	15.7	FAIL
GEAUGA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GREENE	*	*	*	*	*	*	INC
HAMILTON	24	0	0	8.0	F	16.9	FAIL
JEFFERSON	24	0	0	8.0	F	16.9	FAIL
KNOX	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LAKE	3	0	0	1.0	C	12.5	PASS
LAWRENCE	3	0	0	1.0	C	14.5	PASS

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
LICKING	152,866	37,687	18,274	3,192	9,828	4,870	1,942	38,750	8,238
LORAIN	294,324	72,986	37,515	6,182	18,840	9,405	3,829	75,617	16,074
LUCAS	450,632	114,465	57,509	9,695	28,600	14,228	5,771	113,853	24,161
MADISON	41,113	9,556	4,777	809	2,696	1,313	507	10,237	2,158
MAHONING	249,755	55,605	43,526	4,710	16,325	8,594	3,923	73,534	15,817
MEDINA	165,077	41,617	18,025	3,525	10,566	5,191	2,021	40,980	8,679
MIAMI	100,797	24,244	13,790	2,053	6,502	3,298	1,387	27,071	5,780
MONTGOMERY	550,063	131,877	77,927	11,170	35,458	17,935	7,546	146,557	31,218
PORTAGE	154,764	33,744	17,646	2,858	10,353	5,012	1,904	38,436	8,151
PREBLE	42,553	9,988	5,940	846	2,764	1,403	591	11,507	2,458
SCIOTO	77,046	17,810	11,717	1,509	5,009	2,549	1,092	20,987	4,471
STARK	381,229	89,766	58,212	7,603	24,644	12,695	5,535	105,936	22,707
SUMMIT	547,314	131,694	76,383	11,154	35,265	17,856	7,509	146,212	31,158
TRUMBULL	220,486	50,038	35,473	4,238	14,386	7,487	3,329	63,309	13,586
WARREN	189,276	49,076	17,555	4,157	12,048	5,710	2,050	43,048	8,966
WASHINGTON	62,577	13,675	9,753	1,158	4,135	2,135	934	17,860	3,835
WOOD	123,278	26,606	13,925	2,254	8,272	3,974	1,488	29,997	6,372
TOTALS	**8,864,329**	**2,148,268**	**1,165,482**	**181,957**	**571,087**	**285,270**	**116,646**	**2,294,164**	**487,566**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Ohio
1950 Arlingate Lane
Columbus, OH 43228-4102
(614) 279-1700 www.ohiolung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
LICKING	15	1	0	5.5	F
LORAIN	20	1	0	7.2	F
LUCAS	21	0	0	7.0	F
MADISON	20	1	0	7.2	F
MAHONING	17	2	0	6.7	F
MEDINA	21	0	0	7.0	F
MIAMI	21	2	0	8.0	F
MONTGOMERY	17	3	0	7.2	F
PORTAGE	20	2	0	7.7	F
PREBLE	14	0	0	4.7	F
SCIOTO	DNC	DNC	DNC	DNC	DNC
STARK	25	2	0	9.3	F
SUMMIT	24	4	0	10.0	F
TRUMBULL	27	4	0	11.0	F
WARREN	26	2	0	9.7	F
WASHINGTON	17	2	1	7.3	F
WOOD	19	1	0	6.8	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
LICKING	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LORAIN	0	0	0	0.0	A	13.3	PASS
LUCAS	10	0	0	3.3	F	14.4	PASS
MADISON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MAHONING	10	0	0	3.3	F	14.4	PASS
MEDINA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MIAMI	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MONTGOMERY	14	0	0	4.7	F	15.5	FAIL
PORTAGE	2	0	0	0.7	B	13.2	PASS
PREBLE	0	0	0	0.0	A	*	INC
SCIOTO	3	0	0	1.0	C	14.8	PASS
STARK	3	0	0	1.0	C	16.5	FAIL
SUMMIT	16	0	0	5.3	F	15.7	FAIL
TRUMBULL	8	0	0	2.7	D	14.2	PASS
WARREN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WASHINGTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WOOD	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Athens and Preble Counties each improved their grade B to an A.
- Lorain County's grade improved from a C to an A.
- Portage County's grade improved from a C to a B.
- Scioto and Stark Counties each improved their grade from an F to a C.
- Trumbull County's grade improved from an F to a D.
- Lawrence, Lucas, Mahoning and Scioto Counties each improved from failing to passing.
- Gallia County now has a PM monitor, but not enough data to grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

OKLAHOMA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ADAIR	21,657	6,213	2,553	526	1,269	648	258	5,116	1,083
CADDO	30,167	7,997	4,325	677	1,826	952	405	7,793	1,663
CANADIAN	95,505	23,353	9,776	1,978	5,934	2,996	1,128	23,157	4,890
CARTER	47,087	11,566	7,458	980	2,934	1,550	685	13,007	2,786
CHEROKEE	44,106	10,816	5,303	916	2,726	1,379	533	10,619	2,248
CLEVELAND	222,074	49,020	20,106	4,152	14,147	6,971	2,421	51,203	10,693
COMANCHE	110,514	31,265	11,687	2,648	6,482	3,249	1,217	24,707	5,186
COTTON	6,514	1,520	1,064	129	412	218	97	1,837	393
CREEK	68,666	16,970	9,505	1,437	4,270	2,228	941	18,294	3,910
CUSTER	25,230	5,554	3,536	470	1,611	822	330	6,433	1,365
DEWEY	4,667	983	933	83	306	167	81	1,474	319
GARFIELD	57,282	13,809	9,047	1,170	3,588	1,891	831	15,809	3,379
JEFFERSON	6,460	1,430	1,269	121	416	225	107	1,963	422
JOHNSTON	10,440	2,393	1,706	203	665	352	156	2,955	635
KAY	46,761	11,621	7,862	984	2,906	1,550	705	13,180	2,839
LINCOLN	32,386	7,896	4,560	669	2,022	1,057	448	8,681	1,857

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Oklahoma
2805 East Skelly Drive, #806
Tulsa, OK 74105-6252
(918) 747-3441 www.oklung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ADAIR	3	0	0	1.0	C
CADDO	DNC	DNC	DNC	DNC	DNC
CANADIAN	2	0	0	0.7	B
CARTER	4	0	0	1.3	C
CHEROKEE	1	0	0	0.3	B
CLEVELAND	2	0	0	0.7	B
COMANCHE	2	0	0	0.7	B
COTTON	*	*	*	*	*
CREEK	*	*	*	*	*
CUSTER	DNC	DNC	DNC	DNC	DNC
DEWEY	0	0	0	0.0	A
GARFIELD	DNC	DNC	DNC	DNC	DNC
JEFFERSON	*	*	*	*	*
JOHNSTON	*	*	*	*	*
KAY	0	0	0	0.0	A
LINCOLN	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAIR	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CADDO	0	0	0	0.0	A	8.9	PASS
CANADIAN	0	0	0	0.0	A	9.1	PASS
CARTER	0	0	0	0.0	A	9.9	PASS
CHEROKEE	0	0	0	0.0	A	11.3	PASS
CLEVELAND	DNC	DNC	DNC	DNC	DNC	DNC	DNC
COMANCHE	*	*	*	*	*	*	INC
COTTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CREEK	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CUSTER	*	*	*	*	*	*	INC
DEWEY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GARFIELD	1	0	0	0.3	B	9.5	PASS
JEFFERSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JOHNSTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KAY	2	0	0	0.7	B	10.5	PASS
LINCOLN	0	0	0	0.0	A	9.8	PASS

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
MARSHALL	13,860	3,066	2,633	260	893	480	225	4,157	894
MAYES	39,274	9,755	5,954	826	2,436	1,280	556	10,648	2,275
MC CLAIN	29,070	6,966	3,719	590	1,822	940	383	7,564	1,609
MUSKOGEE	70,626	17,193	10,588	1,456	4,402	2,301	987	18,934	4,039
OKLAHOMA	680,815	171,167	82,301	14,498	41,837	21,301	8,377	167,493	35,319
OTTAWA	32,737	7,931	5,478	672	2,047	1,086	487	9,128	1,963
PAWNEE	16,834	4,043	2,495	342	1,059	559	244	4,677	1,006
PAYNE	69,675	12,329	7,459	1,044	4,648	2,258	766	15,906	3,309
PITTSBURG	43,950	9,411	7,434	797	2,853	1,512	675	12,757	2,732
SEMINOLE	24,679	6,153	3,961	521	1,531	811	361	6,826	1,465
TULSA	569,148	145,852	67,573	12,354	34,802	17,768	7,018	140,431	29,680
TOTALS	**2,420,184**	**596,272**	**300,285**	**50,503**	**149,844**	**76,551**	**30,422**	**604,749**	**127,959**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Oklahoma
2805 East Skelly Drive, #806
Tulsa, OK 74105-6252
(918) 747-3441 www.oklung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
MC CLAIN	2	0	0	0.7	B
MARSHALL	*	*	*	*	*
MAYES	*	*	*	*	*
MUSKOGEE	DNC	DNC	DNC	DNC	DNC
OKLAHOMA	2	0	0	0.7	B
OTTAWA	1	0	0	0.3	B
PAWNEE	DNC	DNC	DNC	DNC	DNC
PAYNE	DNC	DNC	DNC	DNC	DNC
PITTSBURG	0	0	0	0.0	A
SEMINOLE	DNC	DNC	DNC	DNC	DNC
TULSA	15	0	0	5.0	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
MC CLAIN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MARSHALL	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MAYES	1	0	0	0.3	B	11.6	PASS
MUSKOGEE	0	0	0	0.0	A	11.8	PASS
OKLAHOMA	1	0	0	0.3	B	10.1	PASS
OTTAWA	0	0	0	0.0	A	11.6	PASS
PAWNEE	*	*	*	*	*	*	INC
PAYNE	*	*	*	*	*	*	INC
PITTSBURG	0	0	0	0.0	A	11.1	PASS
SEMINOLE	0	0	0	0.0	A	9.8	PASS
TULSA	0	0	0	0.0	A	11.4	PASS

Ozone
- Adair, Canadian, Dewey and Pittsburg Counties each have sufficient data to receive a grade.
- Carter County's grade improved from a D to C.
- Kay County's grade improved from a B to an A.
- McClain and Oklahoma Counties each improved their grade from a C to a B.
- Mayes County now has ozone monitors, but not enough data to grade.
- Latimer County no longer has ozone monitors.

PM
- Comanche, Pawnee and Payne Counties no longer have sufficient data to receive a grade.
- Pittsburg and Tulsa Counties each improved their grade from a B to an A.
- Ellis County no longer has PM monitors.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

OREGON

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BENTON	79,357	15,286	8,571	1,295	6,197	2,609	948	19,412	4,101
CLACKAMAS	363,276	87,772	41,626	7,434	26,494	11,703	4,657	93,657	19,936
COLUMBIA	46,971	11,666	5,244	988	3,398	1,496	592	11,926	2,539
DESCHUTES	134,479	30,830	17,538	2,611	9,907	4,411	1,799	35,583	7,557
HARNEY	7,132	1,750	1,221	148	505	243	113	2,117	459
JACKSON	192,992	44,001	30,612	3,727	14,069	6,509	2,867	54,560	11,707
JOSEPHINE	79,920	17,107	16,090	1,449	5,829	2,849	1,380	25,212	5,459
KLAMATH	65,098	15,890	9,927	1,346	4,652	2,147	940	17,920	3,852
LAKE	7,382	1,612	1,375	137	539	262	125	2,301	500
LANE	331,594	70,840	45,402	6,000	24,883	11,081	4,537	89,218	18,956
LINN	107,410	26,363	15,748	2,233	7,682	3,500	1,500	28,908	6,168
MARION	301,841	80,417	36,085	6,811	21,209	9,232	3,624	72,277	15,243
MULTNOMAH	672,161	152,777	71,903	12,940	50,157	21,460	8,042	165,619	34,714
UMATILLA	73,436	19,457	8,819	1,648	5,170	2,268	902	17,956	3,799
UNION	24,406	5,569	3,674	472	1,785	818	354	6,776	1,456
WASCO	23,669	5,701	4,073	483	1,684	801	370	6,903	1,490
WASHINGTON	488,253	129,172	43,106	10,941	34,888	14,578	5,164	109,226	22,724
TOTALS	**2,999,377**	**716,210**	**361,014**	**60,663**	**219,048**	**95,967**	**37,914**	**759,571**	**160,660**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Oregon
7420 SW Bridgeport Road, Suite 200
Tigard, OR 97224-7711
(503) 924-4094 www.lungoregon.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BENTON	DNC	DNC	DNC	DNC	DNC
CLACKAMAS	1	0	0	0.3	B
COLUMBIA	0	0	0	0.0	A
DESCHUTES	DNC	DNC	DNC	DNC	DNC
HARNEY	DNC	DNC	DNC	DNC	DNC
JACKSON	0	0	0	0.0	A
JOSEPHINE	DNC	DNC	DNC	DNC	DNC
KLAMATH	DNC	DNC	DNC	DNC	DNC
LAKE	DNC	DNC	DNC	DNC	DNC
LANE	0	0	0	0.0	A
LINN	*	*	*	*	*
MARION	0	0	0	0.0	A
MULTNOMAH	*	*	*	*	*
UMATILLA	DNC	DNC	DNC	DNC	DNC
UNION	DNC	DNC	DNC	DNC	DNC
WASCO	DNC	DNC	DNC	DNC	DNC
WASHINGTON	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BENTON	*	*	*	*	*	*	INC
CLACKAMAS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
COLUMBIA	0	0	0	0.0	A	6.3	PASS
DESCHUTES	0	0	0	0.0	A	*	INC
HARNEY	*	*	*	*	*	*	INC
JACKSON	19	1	0	6.8	F	11.4	PASS
JOSEPHINE	1	0	0	0.3	B	*	INC
KLAMATH	27	11	2	15.8	F	11.3	PASS
LAKE	*	*	*	*	*	*	INC
LANE	42	5	0	16.5	F	12.8	PASS
LINN	0	0	0	0.0	A	8.1	PASS
MARION	*	*	*	*	*	*	INC
MULTNOMAH	4	0	0	1.3	C	8.7	PASS
UMATILLA	*	*	*	*	*	*	INC
UNION	1	0	0	0.3	B	*	INC
WASCO	0	0	0	0.0	A	7.2	PASS
WASHINGTON	1	1	0	0.8	B	7.9	PASS

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Deschutes County's grade improved from a C to an A.
- Harney, Lake, Marion and Umatilla Counties no longer have sufficient data to grade.
- Josephine and Washington Counties each improved their grade from a C to a B.
- Wasco County's grade improved from a B to an A.
- Union County no longer has sufficient data to grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

PENNSYLVANIA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ADAMS	98,322	22,650	13,526	1,918	6,760	3,220	1,328	25,963	5,524
ALLEGHENY	1,250,867	267,531	215,799	22,660	86,088	43,299	19,545	367,940	78,994
ARMSTRONG	71,395	15,061	12,626	1,276	4,919	2,498	1,142	21,443	4,607
BEAVER	178,601	38,377	32,763	3,251	12,187	6,257	2,911	54,174	11,669
BERKS	391,640	93,203	55,741	7,894	26,559	12,771	5,359	103,981	22,147
BLAIR	127,468	27,618	22,001	2,339	8,738	4,399	1,988	37,411	8,031
BUCKS	617,558	148,106	79,769	12,545	42,065	20,152	8,330	164,434	35,048
CAMBRIA	148,496	29,524	28,432	2,501	10,316	5,307	2,481	45,900	9,898
CENTRE	140,476	23,381	15,009	1,980	10,749	4,612	1,562	32,423	6,763
CHESTER	465,795	116,122	54,993	9,836	31,531	14,824	5,927	118,462	25,191
CLEARFIELD	82,913	17,359	14,093	1,470	5,753	2,873	1,283	24,295	5,198
CUMBERLAND	221,397	46,049	33,035	3,900	15,589	7,534	3,185	61,474	13,156
DAUPHIN	253,282	60,463	35,870	5,121	17,150	8,338	3,546	68,977	14,710
DELAWARE	555,040	133,775	81,708	11,331	37,355	18,149	7,750	148,987	31,862
ERIE	282,355	67,287	40,207	5,699	19,136	9,215	3,875	74,972	16,016

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Pennsylvania
3001 Old Gettysburg Road
Camp Hill, PA 17011-7206
(717) 541-5864 www.alapa.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ADAMS	9	1	0	3.5	F
ALLEGHENY	28	6	0	12.3	F
ARMSTRONG	19	2	0	7.3	F
BEAVER	25	5	0	10.8	F
BERKS	19	1	0	6.8	F
BLAIR	11	1	0	4.2	F
BUCKS	18	10	0	11.0	F
CAMBRIA	8	0	0	2.7	D
CENTRE	14	3	0	6.2	F
CHESTER	29	6	1	13.3	F
CLEARFIELD	17	0	0	5.7	F
CUMBERLAND	DNC	DNC	DNC	DNC	DNC
DAUPHIN	15	3	0	6.5	F
DELAWARE	16	7	0	8.8	F
ERIE	20	1	0	7.2	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS	12	0	0	4.0	F	13.3	PASS
ALLEGHENY	93	17	0	39.5	F	20.4	FAIL
ARMSTRONG	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BEAVER	7	0	0	2.3	D	15.4	FAIL
BERKS	8	1	0	3.2	D	16.1	FAIL
BLAIR	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BUCKS	4	1	0	1.8	C	13.9	PASS
CAMBRIA	6	0	0	2.0	C	15.3	FAIL
CENTRE	11	1	0	4.2	F	*	INC
CHESTER	3	1	0	1.5	C	*	INC
CLEARFIELD	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CUMBERLAND	19	2	0	7.3	F	14.9	PASS
DAUPHIN	18	2	0	7.0	F	15.4	FAIL
DELAWARE	3	1	0	1.5	C	15.1	FAIL
ERIE	9	0	0	3.0	D	*	INC

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
FRANKLIN	134,864	31,261	21,965	2,648	9,106	4,522	2,003	38,035	8,129
GREENE	40,133	8,223	5,947	696	2,839	1,373	580	11,258	2,401
LACKAWANNA	209,932	43,756	38,834	3,706	14,452	7,357	3,391	63,040	13,558
LANCASTER	487,332	125,918	69,059	10,665	32,095	15,523	6,580	127,152	27,106
LAWRENCE	93,374	20,589	17,505	1,744	6,306	3,252	1,526	28,205	6,084
LEHIGH	326,050	76,665	49,608	6,494	22,059	10,792	4,661	89,459	19,098
LUZERNE	313,431	62,952	58,511	5,332	21,783	11,101	5,123	95,376	20,491
LYCOMING	118,542	25,776	19,172	2,183	8,174	4,040	1,774	33,734	7,230
MERCER	119,797	26,638	21,428	2,256	8,115	4,124	1,894	35,267	7,596
MONTGOMERY	774,029	182,007	114,132	15,416	52,501	25,628	11,000	212,485	45,341
NORTHAMPTON	282,554	62,475	42,007	5,292	19,541	9,476	4,030	77,763	16,615
PERRY	44,652	10,598	5,555	898	3,061	1,457	595	11,819	2,518
PHILADELPHIA	1,470,151	372,542	195,041	31,554	98,182	46,244	18,780	368,587	77,976
TIOGA	41,849	9,113	6,874	772	2,880	1,428	631	11,927	2,565
WASHINGTON	205,738	43,426	35,513	3,678	14,209	7,176	3,253	61,265	13,171
WESTMORELAND	368,660	76,024	66,996	6,439	25,483	13,066	6,054	113,137	24,377
YORK	401,613	93,985	54,653	7,961	27,477	13,195	5,497	107,774	22,942
TOTALS	**10,318,306**	**2,378,454**	**1,558,372**	**201,455**	**703,158**	**343,202**	**147,584**	**2,837,119**	**606,012**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Pennsylvania
3001 Old Gettysburg Road
Camp Hill, PA 17011-7206
(717) 541-5864 www.alapa.org

HIGH OZONE DAYS 2002-2004[1]

PARTICLE POLLUTION DAYS 2002-2004[2]

						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
FRANKLIN	30	2	0	11.0	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GREENE	10	2	0	4.3	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LACKAWANNA	15	1	0	5.5	F	16	0	0	5.3	F	12.2	PASS
LANCASTER	21	3	0	8.5	F	10	1	0	3.8	F	16.8	FAIL
LAWRENCE	7	1	0	2.8	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LEHIGH	22	3	0	8.8	F	10	3	0	4.8	F	14.1	PASS
LUZERNE	9	2	0	4.0	F	7	1	0	2.8	D	12.4	PASS
LYCOMING	10	1	0	3.8	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MERCER	22	5	0	9.8	F	5	0	0	1.7	C	13.7	PASS
MONTGOMERY	18	1	0	6.5	F	3	1	0	1.5	C	*	INC
NORTHAMPTON	21	5	0	9.5	F	17	2	0	6.7	F	14.0	PASS
PERRY	10	1	0	3.8	F	3	0	0	1.0	C	12.8	PASS
PHILADELPHIA	26	7	0	12.2	F	17	2	0	6.7	F	15.4	FAIL
TIOGA	10	1	0	3.8	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WASHINGTON	24	2	0	9.0	F	12	1	0	4.5	F	14.9	PASS
WESTMORELAND	14	2	0	5.7	F	5	0	0	1.7	C	15.1	FAIL
YORK	14	3	0	6.2	F	8	3	0	4.2	F	16.9	FAIL

Ozone
- Adams County now has enough data to receive a grade.
- Cambria County's grade improved from an F to a D.

PM
- Berks, Erie and Luzeme Counties each improved their grades from an F to a D.
- Bucks, Cambria, Delaware and Montgomery Counties each improved their grade from a D to a C.
- Chester County now has enough data to receive a grade.
- Mercer and Westmoreland Counties each improved their grade from an F to a C.
- Cumberland County now has sufficient data to receive a grade.
- Montgomery County no longer has sufficient data to receive a grade.
- Washington County's grade improved from failing to passing.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

RHODE ISLAND

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
KENT	172,120	37,707	25,302	3,194	12,869	5,819	2,485	48,399	10,290
PROVIDENCE	641,883	149,861	87,217	12,693	47,378	20,704	8,388	165,032	34,833
WASHINGTON	128,637	27,363	16,953	2,318	9,727	4,313	1,757	34,674	7,397
TOTALS	**942,640**	**214,931**	**129,472**	**18,205**	**69,974**	**30,836**	**12,630**	**248,105**	**52,520**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Rhode Island
298 West Exchange Street
Providence, RI 02903-3700
(401) 421-6487 www.lungusa.org/rhodeisland

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
KENT	12	3	0	5.5	F
PROVIDENCE	14	1	0	5.2	F
WASHINGTON	17	3	0	7.2	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
KENT	0	1	0	0.5	B	8.3	PASS
PROVIDENCE	6	1	0	2.5	D	12.6	PASS
WASHINGTON	*	*	*	*	*	*	INC

Ozone
• No changes occurred in ozone grades or monitors.
PM
• Kent County now has sufficient data to receive a grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

SOUTH CAROLINA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ABBEVILLE	26,308	6,346	3,741	538	1,525	860	364	7,044	1,506
AIKEN	148,960	36,735	19,928	3,111	8,574	4,799	1,991	39,032	8,301
ANDERSON	173,550	41,702	23,893	3,532	10,069	5,649	2,359	46,153	9,808
BARNWELL	23,404	6,313	2,956	535	1,308	731	301	5,931	1,262
BEAUFORT	135,725	32,006	22,631	2,711	7,845	4,478	1,970	37,027	7,918
BERKELEY	149,668	39,918	13,439	3,381	8,378	4,484	1,612	33,631	7,080
CHARLESTON	326,762	77,359	38,359	6,552	18,991	10,390	4,026	81,097	17,107
CHEROKEE	53,782	13,694	6,624	1,160	3,061	1,695	682	13,568	2,872
CHESTER	33,563	8,735	4,254	740	1,902	1,063	438	8,650	1,841
CHESTERFIELD	43,289	11,097	5,351	940	2,465	1,371	557	11,069	2,350
COLLETON	39,595	10,280	5,178	871	2,244	1,258	524	10,261	2,188
DARLINGTON	67,577	17,283	8,309	1,464	3,856	2,146	874	17,358	3,691
EDGEFIELD	24,794	5,675	2,698	481	1,460	794	301	6,158	1,297
FLORENCE	129,679	32,558	15,749	2,758	7,423	4,107	1,646	32,786	6,954

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association-Southeast Region
1817 Gadsden Street
Columbia, SC 29201-2392
(803) 779-5864 www.lungsc.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ABBEVILLE	12	0	0	4.0	F
AIKEN	8	0	0	2.7	D
ANDERSON	20	0	0	6.7	F
BARNWELL	6	0	0	2.0	C
BEAUFORT	DNC	DNC	DNC	DNC	DNC
BERKELEY	0	0	0	0.0	A
CHARLESTON	2	0	0	0.7	B
CHEROKEE	13	1	0	4.8	F
CHESTER	16	0	0	5.3	F
CHESTERFIELD	15	0	0	5.0	F
COLLETON	4	0	0	1.3	C
DARLINGTON	11	0	0	3.7	F
EDGEFIELD	9	0	0	3.0	D
FLORENCE	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ABBEVILLE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
AIKEN	*	*	*	*	*	*	INC
ANDERSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BARNWELL	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BEAUFORT	0	0	0	0.0	A	10.7	PASS
BERKELEY	0	0	0	0.0	A	*	INC
CHARLESTON	2	0	0	0.7	B	11.6	PASS
CHEROKEE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHESTER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHESTERFIELD	1	0	0	0.3	B	12.3	PASS
COLLETON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DARLINGTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
EDGEFIELD	0	0	0	0.0	A	12.5	PASS
FLORENCE	0	0	0	0.0	A	12.3	PASS

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

SOUTH CAROLINA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
GEORGETOWN	59,790	14,026	10,032	1,188	3,498	2,022	916	17,267	3,707
GREENVILLE	401,174	97,533	47,271	8,261	23,173	12,733	4,997	100,441	21,220
GREENWOOD	67,519	16,715	9,372	1,416	3,865	2,163	899	17,526	3,720
HORRY	217,608	46,113	34,205	3,906	13,050	7,394	3,180	61,227	13,008
LEXINGTON	231,057	57,789	25,196	4,895	13,271	7,264	2,813	57,253	12,083
OCONEE	69,057	15,230	11,528	1,290	4,111	2,366	1,059	20,091	4,300
ORANGEBURG	90,779	22,489	12,440	1,905	5,204	2,914	1,211	23,522	5,024
PICKENS	112,475	24,206	13,640	2,050	6,687	3,638	1,387	27,782	5,873
RICHLAND	334,609	80,336	32,333	6,804	19,333	10,334	3,705	76,913	16,162
SPARTANBURG	264,230	64,286	33,004	5,445	15,260	8,447	3,392	67,490	14,284
UNION	28,862	6,818	4,690	577	1,685	969	434	8,238	1,763
WILLIAMSBURG	35,372	9,473	4,634	802	1,987	1,118	471	9,184	1,966
YORK	183,762	46,155	19,217	3,909	10,511	5,709	2,157	44,167	9,306
TOTALS	**3,472,950**	**840,870**	**430,672**	**71,222**	**200,736**	**110,896**	**44,266**	**880,866**	**186,591**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association-Southeast Region
1817 Gadsden Street
Columbia, SC 29201-2392
(803) 779-5864 www.lungsc.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
GEORGETOWN	DNC	DNC	DNC	DNC	DNC
GREENVILLE	DNC	DNC	DNC	DNC	DNC
GREENWOOD	DNC	DNC	DNC	DNC	DNC
HORRY	DNC	DNC	DNC	DNC	DNC
LEXINGTON	DNC	DNC	DNC	DNC	DNC
OCONEE	6	0	0	2.0	C
ORANGEBURG	*	*	*	*	*
PICKENS	11	0	0	3.7	F
RICHLAND	24	0	0	8.0	F
SPARTANBURG	23	1	0	8.2	F
UNION	4	0	0	1.3	C
WILLIAMSBURG	1	0	0	0.3	B
YORK	15	0	0	5.0	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
GEORGETOWN	0	0	0	0.0	A	12.4	PASS
GREENVILLE	1	0	0	0.3	B	15.8	FAIL
GREENWOOD	0	0	0	0.0	A	13.0	PASS
HORRY	0	1	0	0.5	B	11.3	PASS
LEXINGTON	2	0	0	0.7	B	13.6	PASS
OCONEE	1	0	0	0.3	B	10.3	PASS
ORANGEBURG	0	0	0	0.0	A	*	INC
PICKENS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
RICHLAND	1	0	0	0.3	B	13.6	PASS
SPARTANBURG	2	0	0	0.7	B	13.6	PASS
UNION	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WILLIAMSBURG	DNC	DNC	DNC	DNC	DNC	DNC	DNC
YORK	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Aiken County's grade improved from an F to a D.
- Barnwell and Oconee Counties each improved their grade from a D to a C.
- Chesterfield and Pennington Counties now have enough data to receive a grade.
- Orangeburg County now has ozone monitors, but not enough data to receive a grade.

PM
- Berkeley and Orangeburg Counties now have enough data to receive a grade.
- Greenville and Spartanburg Counties each improved their grade from a C to a B.
- Horry County's grade dropped from an A to a B.
- Greenville County's grade dropped from passing to failing.
- York County no longer has PM monitors.
- Aiken County now has PM monitors, but not enough data to receive a grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

SOUTH DAKOTA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BROOKINGS	28,159	5,190	3,134	440	1,469	914	320	6,505	1,373
BROWN	34,812	7,652	5,811	648	1,817	1,182	523	9,873	2,116
CODINGTON	25,914	6,261	3,844	530	1,304	841	357	6,886	1,461
JACKSON	2,900	974	354	82	127	82	34	654	140
MEADE	24,856	6,700	2,688	567	1,196	759	294	5,941	1,258
MINNEHAHA	157,366	39,557	17,696	3,350	7,703	4,875	1,860	37,726	7,921
PENNINGTON	92,631	23,192	11,294	1,964	4,584	2,925	1,166	23,222	4,921
TOTALS	**366,638**	**89,526**	**44,821**	**7,581**	**18,200**	**11,578**	**4,554**	**90,807**	**19,190**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of South Dakota
1212 West Elkhorn Street, Suite 1
Sioux Falls, SD 57104-0233
(605) 336-7222 www.lungusa.org/southdakota

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BROOKINGS	DNC	DNC	DNC	DNC	DNC
BROWN	DNC	DNC	DNC	DNC	DNC
CODINGTON	DNC	DNC	DNC	DNC	DNC
JACKSON	*	*	*	*	*
MEADE	DNC	DNC	DNC	DNC	DNC
MINNEHAHA	0	0	0	0.0	A
PENNINGTON	0	0	0	0.0	A

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BROOKINGS	0	0	0	0.0	A	9.6	PASS
BROWN	0	0	0	0.0	A	8.1	PASS
CODINGTON	*	*	*	*	*	*	INC
JACKSON	0	0	0	0.0	A	5.4	PASS
MEADE	0	0	0	0.0	A	6.3	PASS
MINNEHAHA	0	0	0	0.0	A	9.9	PASS
PENNINGTON	0	0	0	0.0	A	7.3	PASS

Ozone
- Pennington County now has enough data to receive a grade.

PM
- Jackson County now has enough data to receive a grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

TENNESSEE

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ANDERSON	72,244	15,753	11,932	1,334	5,092	2,486	1,112	21,105	4,528
BLOUNT	113,744	24,674	16,160	2,090	7,989	3,817	1,595	31,157	6,629
COFFEE	50,172	11,960	7,552	1,013	3,426	1,646	706	13,577	2,891
DAVIDSON	572,475	130,317	63,342	11,038	39,336	18,188	6,809	139,259	29,198
DYER	37,621	9,233	5,074	782	2,545	1,213	504	9,866	2,098
HAMBLEN	59,489	13,480	8,256	1,142	4,121	1,962	812	15,923	3,377
HAMILTON	310,371	69,108	43,754	5,853	21,651	10,356	4,337	84,566	18,036
HAYWOOD	19,614	5,090	2,582	431	1,302	620	256	5,024	1,068
HUMPHREYS	18,141	4,093	2,836	347	1,265	614	270	5,163	1,105
JEFFERSON	47,593	10,367	6,529	878	3,328	1,576	643	12,621	2,678
KNOX	400,061	86,442	50,656	7,322	28,014	13,165	5,212	103,963	22,000
LAWRENCE	40,864	10,265	6,043	869	2,742	1,317	564	10,852	2,310
LOUDON	42,237	8,863	7,452	751	3,008	1,476	673	12,647	2,713
MADISON	94,397	23,400	11,395	1,982	6,339	2,974	1,173	23,363	4,953
MAURY	74,692	18,229	8,858	1,544	5,052	2,378	941	18,861	3,993
MCMINN	50,981	11,683	7,331	990	3,527	1,691	715	13,900	2,962

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Tennessee
One Vantage Way, Suite B-130
Nashville, TN 37228-1539
(615) 329-1151 www.alatn.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ANDERSON	20	1	0	7.2	F
BLOUNT	40	3	0	14.8	F
COFFEE	*	*	*	*	*
DAVIDSON	1	0	0	0.3	B
DYER	DNC	DNC	DNC	DNC	DNC
HAMBLEN	*	*	*	*	*
HAMILTON	22	3	0	8.8	F
HAYWOOD	*	*	*	*	*
HUMPHREYS	*	*	*	*	*
JEFFERSON	25	1	0	8.8	F
KNOX	26	0	0	8.7	F
LAWRENCE	3	0	0	1.0	C
LOUDON	*	*	*	*	*
MC MINN	DNC	DNC	DNC	DNC	DNC
MADISON	DNC	DNC	DNC	DNC	DNC
MAURY	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ANDERSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BLOUNT	1	0	0	0.3	B	13.9	PASS
COFFEE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DAVIDSON	1	0	0	0.3	B	*	INC
DYER	0	0	0	0.0	A	11.4	PASS
HAMBLEN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HAMILTON	1	0	0	0.3	B	15.7	FAIL
HAYWOOD	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HUMPHREYS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JEFFERSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KNOX	6	0	0	2.0	C	15.7	FAIL
LAWRENCE	0	0	0	0.0	A	11.3	PASS
LOUDON	*	*	*	*	*	*	INC
MC MINN	1	0	0	0.3	B	13.9	PASS
MADISON	0	0	0	0.0	A	*	INC
MAURY	0	0	0	0.0	A	12.4	PASS

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

TENNESSEE

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
MEIGS	11,524	2,735	1,442	232	788	374	152	3,014	640
MONTGOMERY	142,204	40,754	11,749	3,452	8,967	4,040	1,372	29,319	6,052
OBION	32,393	7,292	5,064	618	2,258	1,094	478	9,159	1,959
PUTNAM	65,963	14,160	8,919	1,199	4,612	2,163	861	16,960	3,585
ROANE	52,920	11,081	8,694	939	3,774	1,844	823	15,656	3,363
RUTHERFORD	210,025	52,941	16,209	4,484	13,877	6,210	2,037	44,377	9,135
SEVIER	77,270	16,820	10,554	1,425	5,424	2,587	1,070	21,065	4,478
SHELBY	908,175	247,643	88,990	20,975	58,896	27,259	10,144	209,026	43,967
SULLIVAN	152,498	31,627	25,294	2,679	10,899	5,322	2,377	45,178	9,696
SUMNER	141,611	34,343	15,502	2,909	9,594	4,487	1,729	35,165	7,431
WILLIAMSON	146,935	38,203	12,346	3,236	9,743	4,514	1,649	34,674	7,336
WILSON	97,891	23,999	9,905	2,033	6,607	3,075	1,159	23,859	5,035
TOTALS	**4,044,105**	**974,555**	**474,420**	**82,547**	**274,176**	**128,448**	**50,173**	**1,009,299**	**213,216**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Tennessee
One Vantage Way, Suite B-130
Nashville, TN 37228-1539
(615) 329-1151 www.alatn.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
MEIGS	28	1	0	9.8	F
MONTGOMERY	DNC	DNC	DNC	DNC	DNC
OBION	*	*	*	*	*
PUTNAM	*	*	*	*	*
ROANE	DNC	DNC	DNC	DNC	DNC
RUTHERFORD	10	0	0	3.3	F
SEVIER	43	1	0	14.8	F
SHELBY	16	0	0	5.3	F
SULLIVAN	16	0	0	5.3	F
SUMNER	13	0	0	4.3	F
WILLIAMSON	13	0	0	4.3	F
WILSON	7	1	0	2.8	D

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
MEIGS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MONTGOMERY	0	0	0	0.0	A	13.0	PASS
OBION	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PUTNAM	0	0	0	0.0	A	12.9	PASS
ROANE	0	0	0	0.0	A	13.6	PASS
RUTHERFORD	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SEVIER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SHELBY	2	0	0	0.7	B	13.5	PASS
SULLIVAN	1	0	0	0.3	B	13.8	PASS
SUMNER	0	0	0	0.0	A	13.0	PASS
WILLIAMSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WILSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Davidson County's grade improved from a C to a B.
- Haywood and Putnam Counties no longer have enough data to receive a grade.
- Rutherford County's grade dropped from a D to an F.
- Coffee and Loudon Counties now have ozone monitors, but not enough data to receive a grade.
- Dyer and Montgomery Counties no longer have ozone monitors.

PM
- Blount, Hamilton and Shelby Counties each improved their grade from a C to a B.
- Knox County's grade dropped from an F to a C.
- Lawrence and Roane Counties each improved their grade from a C to an A.
- Madison and Putnam Counties each improved their grade from a B to an A.
- McMinn County now has sufficient date to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

TEXAS

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BEXAR	1,493,965	420,256	153,588	35,596	76,914	44,053	16,417	335,475	70,374
BOWIE	90,248	21,841	11,898	1,850	4,911	2,895	1,178	23,224	4,916
BRAZORIA	271,130	75,183	23,494	6,368	14,114	7,972	2,835	59,711	12,482
BREWSTER	9,226	2,004	1,280	170	518	306	125	2,430	520
CALDWELL	36,498	10,011	4,165	848	1,894	1,096	422	8,500	1,784
CAMERON	371,825	126,127	39,762	10,683	17,498	10,121	3,892	77,753	16,339
COLLIN	627,938	174,973	36,206	14,820	32,629	17,788	5,538	125,329	25,678
DALLAS	2,294,706	655,066	187,979	55,484	117,483	65,651	22,484	480,572	99,424
DENTON	530,597	144,955	26,966	12,278	27,705	14,917	4,407	102,013	20,761
ECTOR	124,488	36,995	13,800	3,133	6,279	3,650	1,425	28,508	6,029
EL PASO	713,126	224,590	71,970	19,023	34,949	20,062	7,531	152,856	32,124
ELLIS	128,710	35,987	11,659	3,048	6,676	3,788	1,368	28,516	5,985
GALVESTON	271,743	70,557	29,266	5,976	14,525	8,411	3,242	65,830	13,917
GREGG	115,035	30,773	15,131	2,606	6,042	3,574	1,469	28,713	6,100
HARRIS	3,644,285	1,055,071	274,447	89,365	186,301	103,828	35,198	759,240	157,487
HARRISON	62,727	15,868	8,014	1,344	3,378	1,995	817	16,028	3,424
HAYS	119,359	28,205	9,157	2,389	6,502	3,568	1,141	24,715	5,131
HIDALGO	658,248	231,863	61,498	19,639	30,262	17,169	6,204	127,204	26,438
HOOD	46,492	10,442	8,443	884	2,586	1,601	741	13,786	2,963
HUNT	81,781	20,829	9,972	1,764	4,377	2,558	1,015	20,155	4,274
JEFF DAVIS	2,253	498	398	42	127	79	37	691	150

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Texas
P.O. Box 26460
Austin, TX 78755-0460
(512) 467-6753 www.texaslung.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BEXAR	28	3	0	10.8	F
BOWIE	DNC	DNC	DNC	DNC	DNC
BRAZORIA	32	8	0	14.7	F
BREWSTER	0	0	0	0.0	A
CALDWELL	DNC	DNC	DNC	DNC	DNC
CAMERON	1	0	0	0.3	B
COLLIN	20	1	0	7.2	F
DALLAS	30	3	1	12.2	F
DENTON	31	4	0	12.3	F
ECTOR	DNC	DNC	DNC	DNC	DNC
ELLIS	19	1	0	6.8	F
EL PASO	6	1	0	2.5	D
GALVESTON	23	3	1	9.8	F
GREGG	8	0	0	2.7	D
HARRIS	74	21	6	39.2	F
HARRISON	12	0	0	4.0	F
HAYS	*	*	*	*	*
HIDALGO	3	0	0	1.0	C
HOOD	6	0	0	2.0	C
HUNT	*	*	*	*	*
JEFF DAVIS	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BEXAR	*	*	*	*	*	*	INC
BOWIE	0	0	0	0.0	A	12.8	PASS
BRAZORIA	*	*	*	*	*	*	INC
BREWSTER	0	0	0	0.0	A	5.0	PASS
CALDWELL	*	*	*	*	*	*	INC
CAMERON	2	0	0	0.7	B	9.8	PASS
COLLIN	*	*	*	*	*	*	INC
DALLAS	4	0	0	1.3	C	13.5	PASS
DENTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ECTOR	0	0	0	0.0	A	7.8	PASS
ELLIS	0	0	0	0.0	A	*	INC
EL PASO	17	1	0	6.2	F	*	INC
GALVESTON	2	0	0	0.7	B	9.9	PASS
GREGG	2	0	0	0.7	B	12.1	PASS
HARRIS	6	0	0	2.0	C	14.4	PASS
HARRISON	1	0	0	0.3	B	11.5	PASS
HAYS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HIDALGO	2	0	0	0.7	B	10.9	PASS
HOOD	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HUNT	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JEFF DAVIS	0	0	0	0.0	A	*	INC

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
JEFFERSON	248,223	62,819	33,089	5,321	13,294	7,856	3,220	63,083	13,382
JOHNSON	143,418	38,484	13,904	3,260	7,551	4,308	1,584	32,748	6,878
KAUFMAN	85,377	23,200	8,301	1,965	4,472	2,552	940	19,410	4,075
KLEBERG	31,357	8,233	3,469	697	1,647	943	351	7,087	1,489
LUBBOCK	251,018	63,700	28,046	5,395	13,353	7,650	2,855	57,793	12,127
MC LENNAN	222,439	58,144	27,753	4,925	11,716	6,827	2,686	53,020	11,214
MONTGOMERY	362,382	99,614	31,417	8,437	18,970	10,741	3,850	80,967	16,970
NUECES	317,513	87,787	35,850	7,436	16,525	9,615	3,764	75,500	15,972
ORANGE	84,873	21,813	11,163	1,848	4,545	2,698	1,119	21,903	4,670
PARKER	100,336	25,156	10,631	2,131	5,429	3,134	1,196	24,374	5,156
POTTER	118,410	33,968	13,642	2,877	6,025	3,491	1,350	27,017	5,672
ROCKWALL	58,260	15,848	4,806	1,342	3,062	1,724	606	12,864	2,691
SMITH	186,414	48,587	25,981	4,115	9,872	5,877	2,459	47,631	10,132
TARRANT	1,588,088	447,160	131,672	37,874	81,991	46,009	15,990	340,161	70,708
TRAVIS	869,868	214,594	59,661	18,176	46,856	25,571	7,999	178,857	36,469
VICTORIA	85,777	23,942	10,674	2,028	4,449	2,626	1,072	21,086	4,486
WEBB	219,464	81,102	16,637	6,869	9,851	5,491	1,864	39,503	8,170
TOTALS	**16,667,597**	**4,746,245**	**1,465,789**	**402,006**	**855,278**	**482,195**	**170,391**	**3,584,253**	**746,561**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Texas
P.O. Box 26460
Austin, TX 78755-0460
(512) 467-6753 www.texaslung.org

HIGH OZONE DAYS 2002-2004[1]

PARTICLE POLLUTION DAYS 2002-2004[2]

						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
JEFFERSON	16	1	0	5.8	F	4	0	0	1.3	C	11.1	PASS
JOHNSON	16	2	0	6.3	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KAUFMAN	2	0	0	0.7	B	0	0	0	0.0	A	*	INC
KLEBERG	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
LUBBOCK	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	*	INC
MC LENNAN	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
MONTGOMERY	9	3	0	4.5	F	0	0	0	0.0	A	11.2	PASS
NUECES	6	0	0	2.0	C	0	0	0	0.0	A	9.8	PASS
ORANGE	10	0	0	3.3	F	2	0	0	0.7	B	11.4	PASS
PARKER	21	1	0	7.5	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
POTTER	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	*	INC
ROCKWALL	8	0	0	2.7	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SMITH	5	0	0	1.7	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TARRANT	59	9	1	24.8	F	5	0	0	1.7	C	12.7	PASS
TRAVIS	11	0	0	3.7	F	*	*	*	*	*	*	INC
VICTORIA	5	0	0	1.7	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WEBB	0	0	0	0.0	A	*	*	*	*	*	*	INC

Ozone
- Cameron County's grade dropped from an A to a B.
- El Paso County's grade improved from an F to a D.
- The grades for Gregg and Rockwell Counties both dropped from a C to a D.
- Hood County's grade improved from an F to a C.
- The grades for Jefferson and Orange Counties both dropped from a D to an F.
- Marion County no longer has ozone monitors.

PM
- Bexar, Brazoria, Caldwell, Collin, McLennan, Travis and Webb Counties no longer have enough data to grade.
- Ellis, Jeff Davis and Kaufman Counties now have enough data to receive a grade.
- Harris County's grade improved from a D to a C.
- Brewster, Ector, Harrison and Montgomery Counties now have sufficient data to grade their annual levels.
- Marion County now has PM monitors, but not enough data to grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

UTAH

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
BOX ELDER	44,810	14,627	4,874	1,239	2,393	1,246	480	9,561	2,018
CACHE	97,467	29,867	7,416	2,530	5,435	2,602	815	17,772	3,607
DAVIS	261,208	85,074	20,229	7,206	14,101	6,999	2,363	50,343	10,433
SALT LAKE	935,295	277,596	76,966	23,512	52,612	26,269	8,986	191,326	39,595
SAN JUAN	14,015	4,920	1,249	417	724	372	136	2,777	588
TOOELE	49,688	16,609	3,449	1,407	2,657	1,290	412	8,978	1,840
UTAH	403,352	137,898	25,934	11,680	21,401	10,084	3,002	67,027	13,514
WASHINGTON	109,924	31,753	18,658	2,689	6,119	3,338	1,480	27,468	5,810
WEBER	208,633	62,579	21,172	5,300	11,621	5,947	2,194	44,853	9,365
TOTALS	**2,124,392**	**660,923**	**179,947**	**55,980**	**117,063**	**58,147**	**19,868**	**420,105**	**86,770**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Utah
1930 South 1100 East
Salt Lake City, UT 84106-2317
(801) 484-4456 www.lungusa.org/utah

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BOX ELDER	5	0	0	1.7	C
CACHE	0	0	0	0.0	A
DAVIS	5	0	0	1.7	C
SALT LAKE	11	0	0	3.7	F
SAN JUAN	0	0	0	0.0	A
TOOELE	DNC	DNC	DNC	DNC	DNC
UTAH	3	0	0	1.0	C
WASHINGTON	*	*	*	*	*
WEBER	5	0	0	1.7	C

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BOX ELDER	5	2	0	2.7	D	9.3	PASS
CACHE	24	21	0	18.5	F	12.7	PASS
DAVIS	11	2	0	4.7	F	*	INC
SALT LAKE	58	9	0	23.8	F	15.2	FAIL
SAN JUAN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TOOELE	*	*	*	*	*	*	INC
UTAH	26	8	0	12.7	F	10.8	PASS
WASHINGTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WEBER	9	4	0	5.0	F	12.8	PASS

Ozone
- Box Elder, Davis and Weber Counties each improved their grades from a D to a C.
- Washington County now has ozone monitors, but not enough data to grade.

PM
- Tooele County no longer has sufficient data to grade their annual levels.
- Salt Lake County's grade dropped from passing to failing.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

VERMONT

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ADDISON	36,865	8,153	4,264	691	2,418	1,215	479	9,579	2,054
BENNINGTON	36,956	7,764	6,335	658	2,437	1,299	592	11,159	2,407
CHITTENDEN	149,286	32,369	14,856	2,742	9,902	4,813	1,765	36,523	7,720
RUTLAND	63,616	13,134	9,764	1,112	4,225	2,213	966	18,575	3,994
WASHINGTON	59,068	12,524	7,640	1,061	3,906	2,004	826	16,355	3,500
TOTALS	**345,791**	**73,944**	**42,859**	**6,264**	**22,888**	**11,544**	**4,628**	**92,191**	**19,675**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Vermont
30 Farrell Street
South Burlington, VT 05403-6196
(802) 863-6817 www.lungusa.org/vermont

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ADDISON	DNC	DNC	DNC	DNC	DNC
BENNINGTON	6	0	0	2.0	C
CHITTENDEN	3	0	0	1.0	C
RUTLAND	DNC	DNC	DNC	DNC	DNC
WASHINGTON	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADDISON	*	*	*	*	*	*	INC
BENNINGTON	1	1	0	0.8	B	*	INC
CHITTENDEN	2	0	0	0.7	B	9.4	PASS
RUTLAND	0	1	0	0.5	B	*	INC
WASHINGTON	*	*	*	*	*	*	INC

Ozone
- No changes occurred in ozone grades or monitors.

PM
- No changes occurred in ozone grades or monitors.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

VIRGINIA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ARLINGTON	186,117	33,552	17,427	2,842	11,086	6,136	2,118	45,592	9,379
CAROLINE	24,019	5,660	3,045	479	1,347	778	314	6,238	1,322
CHARLES CITY	7,120	1,422	1,008	120	420	248	105	2,064	442
CHESTERFIELD	282,925	73,976	21,585	6,266	15,235	8,587	3,037	64,742	13,671
FAIRFAX	1,003,157	253,602	87,005	21,480	54,779	31,208	11,497	241,334	51,023
FAUQUIER	63,255	15,685	6,640	1,329	3,483	2,000	772	15,758	3,340
FREDERICK	66,611	16,440	7,223	1,392	3,668	2,088	797	16,286	3,425
HANOVER	96,054	23,973	10,699	2,031	5,283	3,043	1,196	24,110	5,128
HENRICO	276,479	68,143	33,542	5,772	15,264	8,771	3,486	69,826	14,734
LOUDOUN	239,156	69,554	12,492	5,891	12,246	6,576	1,967	45,449	9,211
MADISON	13,134	2,945	2,040	249	752	447	197	3,762	808
PAGE	23,730	5,215	3,827	442	1,366	808	356	6,789	1,451
PRINCE WILLIAM	336,586	99,367	17,803	8,416	17,154	9,285	2,845	64,885	13,293
ROANOKE	87,679	19,290	13,485	1,634	5,051	3,009	1,325	25,391	5,464
ROCKBRIDGE	21,084	4,404	3,543	373	1,233	735	330	6,254	1,342
STAFFORD	114,781	32,874	6,434	2,784	5,929	3,227	1,010	22,771	4,692
WYTHE	28,013	5,952	4,476	504	1,627	963	423	8,084	1,729

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Virginia
9221 Forest Hill Avenue
Richmond, VA 23235-6876
(804) 267-1900 www.lungusa.org/virginia

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ARLINGTON	18	7	1	10.2	F
CAROLINE	7	1	0	2.8	D
CHARLES CITY	14	5	0	7.2	F
CHESTERFIELD	11	1	0	4.2	F
FAIRFAX	27	10	2	15.3	F
FAUQUIER	6	0	0	2.0	C
FREDERICK	11	0	0	3.7	F
HANOVER	17	4	0	7.7	F
HENRICO	12	1	1	5.2	F
LOUDOUN	24	4	0	10.0	F
MADISON	12	1	0	4.5	F
PAGE	4	0	0	1.3	C
PRINCE WILLIAM	10	2	0	4.3	F
ROANOKE	6	0	0	2.0	C
ROCKBRIDGE	0	0	0	0.0	A
STAFFORD	15	2	1	6.7	F
WYTHE	8	0	0	2.7	D

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ARLINGTON	4	0	0	1.3	C	14.5	PASS
CAROLINE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHARLES CITY	1	0	0	0.3	B	12.3	PASS
CHESTERFIELD	1	0	0	0.3	B	13.4	PASS
FAIRFAX	8	0	0	2.7	D	13.9	PASS
FAUQUIER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FREDERICK	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HANOVER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HENRICO	1	0	0	0.3	B	13.7	PASS
LOUDOUN	3	0	0	1.0	C	13.5	PASS
MADISON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PAGE	2	0	0	0.7	B	12.6	PASS
PRINCE WILLIAM	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ROANOKE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ROCKBRIDGE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
STAFFORD	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WYTHE	DNC	DNC	DNC	DNC	DNC	DNC	DNC

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ALEXANDRIA CITY	128,206	25,258	13,019	2,139	7,493	4,178	1,493	31,628	6,517
BRISTOL CITY	17,308	3,482	3,752	295	1,027	623	304	5,500	1,185
CHESAPEAKE CITY	214,725	57,945	19,981	4,908	11,438	6,455	2,369	49,253	10,353
HAMPTON CITY	145,951	34,983	16,025	2,963	8,095	4,559	1,706	34,743	7,302
LYNCHBURG CITY	64,932	14,369	11,204	1,217	3,722	2,179	960	17,833	3,842
NEWPORT NEWS CITY	181,913	52,487	18,661	4,446	9,441	5,314	1,986	40,638	8,501
NORFOLK CITY	237,835	59,863	23,646	5,070	12,916	7,091	2,473	51,383	10,665
RICHMOND CITY	192,494	44,237	26,743	3,747	10,860	6,227	2,525	49,355	10,445
ROANOKE CITY	92,352	21,612	15,302	1,831	5,220	3,091	1,377	26,096	5,567
SALEM CITY	24,347	4,837	4,078	410	1,439	850	375	7,067	1,524
SUFFOLK CITY	76,586	20,354	8,037	1,724	4,105	2,321	873	17,887	3,749
VIRGINIA BEACH CITY	440,098	118,172	40,709	10,009	23,440	13,093	4,696	98,337	20,507
TOTALS	**4,686,647**	**1,189,653**	**453,431**	**100,763**	**255,119**	**143,890**	**52,912**	**1,099,055**	**230,611**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Virginia
9221 Forest Hill Avenue
Richmond, VA 23235-6876
(804) 267-1900 www.lungusa.org/virginia

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALEXANDRIA CITY	11	5	0	6.2	F
BRISTOL CITY	DNC	DNC	DNC	DNC	DNC
CHESAPEAKE CITY	DNC	DNC	DNC	DNC	DNC
HAMPTON CITY	14	3	0	6.2	F
LYNCHBURG CITY	DNC	DNC	DNC	DNC	DNC
NEWPORT NEWS CITY	DNC	DNC	DNC	DNC	DNC
NORFOLK CITY	DNC	DNC	DNC	DNC	DNC
RICHMOND CITY	DNC	DNC	DNC	DNC	DNC
ROANOKE CITY	DNC	DNC	DNC	DNC	DNC
SALEM CITY	DNC	DNC	DNC	DNC	DNC
SUFFOLK CITY	16	3	0	6.8	F
VIRGINIA BEACH CITY	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALEXANDRIA CITY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BRISTOL CITY	1	0	0	0.3	B	13.9	PASS
CHESAPEAKE CITY	*	*	*	*	*	*	INC
HAMPTON CITY	1	0	0	0.3	B	12.1	PASS
LYNCHBURG CITY	0	0	0	0.0	A	*	INC
NEWPORT NEWS CITY	*	*	*	*	*	*	INC
NORFOLK CITY	2	0	0	0.7	B	12.7	PASS
RICHMOND CITY	6	0	0	2.0	C	*	INC
ROANOKE CITY	1	0	0	0.3	B	13.8	PASS
SALEM CITY	2	0	0	0.7	B	14.4	PASS
SUFFOLK CITY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
VIRGINIA BEACH CITY	3	0	0	1.0	C	12.5	PASS

Ozone
- Carolina County's grade improved from an F to a D.
- Page and Roanoke Counties each improved their grade from an F to a C.
- Rockbridge County's grade improved from a B to an A.

PM
- Page County, Bristol City, Norfolk City, Roanoke City and Salem City each improved their grade from a C to a B.
- Chesapeake City and Newport News City now have enough data to grade.
- Lynchburg City's grade improved from a B to an A.
- Richmond City's grade improved an F to C.
- Virginia Beach City's grade dropped from a B to a C.
- Chesapeake County, Newport News and Richmond City no longer have sufficient data to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

WASHINGTON

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ADAMS	16,596	5,346	1,701	453	1,022	468	180	3,607	766
BENTON	155,991	41,763	16,248	3,537	10,396	4,764	1,822	37,051	7,843
CLALLAM	67,867	13,262	14,796	1,123	4,982	2,489	1,228	22,190	4,811
CLARK	392,403	104,061	37,826	8,814	26,212	11,874	4,382	90,791	19,064
COWLITZ	96,189	23,915	12,662	2,026	6,586	3,093	1,281	25,124	5,356
GRANT	79,981	23,864	9,102	2,021	5,091	2,335	912	18,151	3,839
GRAYS HARBOR	70,338	15,942	10,485	1,350	4,955	2,350	1,006	19,365	4,144
KING	1,777,143	381,810	186,959	32,339	126,928	57,739	21,563	445,478	93,597
KITSAP	239,138	59,082	26,621	5,004	16,406	7,575	2,959	59,730	12,683
KLICKITAT	19,855	4,732	2,951	401	1,383	666	293	5,603	1,210
LEWIS	71,539	17,106	11,229	1,449	4,960	2,375	1,045	19,870	4,263
MASON	53,637	11,305	8,957	958	3,856	1,850	821	15,544	3,334
OKANOGAN	39,444	9,744	5,934	825	2,713	1,305	575	10,965	2,365
PIERCE	745,411	191,318	76,252	16,205	50,323	22,810	8,486	174,322	36,636
SKAGIT	111,064	26,635	15,787	2,256	7,684	3,619	1,523	29,532	6,296
SKAMANIA	10,549	2,438	1,158	206	741	345	137	2,762	590
SNOHOMISH	644,274	163,824	60,452	13,876	43,697	19,761	7,223	150,571	31,625
SPOKANE	435,644	104,189	53,773	8,825	30,139	13,937	5,537	110,149	23,364
STEVENS	41,310	10,008	5,812	848	2,864	1,374	596	11,484	2,484
THURSTON	224,673	51,256	26,202	4,341	15,792	7,291	2,856	57,563	12,199
WALLA WALLA	57,354	12,992	8,344	1,100	4,025	1,876	776	14,979	3,191
WHATCOM	180,167	39,800	21,594	3,371	12,745	5,832	2,251	45,230	9,557
WHITMAN	40,146	6,723	3,780	569	3,005	1,288	407	8,681	1,794
YAKIMA	229,094	69,321	25,467	5,871	14,506	6,660	2,601	51,960	10,985
TOTALS	**5,799,807**	**1,390,436**	**644,092**	**117,768**	**401,011**	**183,676**	**70,460**	**1,430,702**	**301,996**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Washington
2625 Third Avenue
Seattle, WA 98121-1213
(206) 441-5100 www.alaw.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ADAMS	DNC	DNC	DNC	DNC	DNC
BENTON	DNC	DNC	DNC	DNC	DNC
CLALLAM	0	0	0	0.0	A
CLARK	0	0	0	0.0	A
COWLITZ	DNC	DNC	DNC	DNC	DNC
GRANT	DNC	DNC	DNC	DNC	DNC
GRAYS HARBOR	DNC	DNC	DNC	DNC	DNC
KING	3	0	0	1.0	C
KITSAP	DNC	DNC	DNC	DNC	DNC
KLICKITAT	0	0	0	0.0	A
LEWIS	0	0	0	0.0	A
MASON	0	0	0	0.0	A
OKANOGAN	DNC	DNC	DNC	DNC	DNC
PIERCE	1	0	0	0.3	B
SKAGIT	0	0	0	0.0	A
SKAMANIA	DNC	DNC	DNC	DNC	DNC
SNOHOMISH	DNC	DNC	DNC	DNC	DNC
SPOKANE	0	0	0	0.0	A
STEVENS	DNC	DNC	DNC	DNC	DNC
THURSTON	0	0	0	0.0	A
WALLA WALLA	DNC	DNC	DNC	DNC	DNC
WHATCOM	0	0	0	0.0	A
WHITMAN	DNC	DNC	DNC	DNC	DNC
YAKIMA	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS	*	*	*	*	*	*	INC
BENTON	1	0	0	0.3	B	*	INC
CLALLAM	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CLARK	6	0	0	2.0	C	9.7	PASS
COWLITZ	*	*	*	*	*	*	INC
GRANT	*	*	*	*	*	*	INC
GRAYS HARBOR	0	0	0	0.0	A	*	INC
KING	3	0	0	1.0	C	11.2	PASS
KITSAP	*	*	*	*	*	*	INC
KLICKITAT	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LEWIS	*	*	*	*	*	*	INC
MASON	*	*	*	*	*	*	INC
OKANOGAN	*	*	*	*	*	*	INC
PIERCE	12	0	0	4.0	F	10.5	PASS
SKAGIT	*	*	*	*	*	*	INC
SKAMANIA	*	*	*	*	*	*	INC
SNOHOMISH	9	0	0	3.0	D	10.7	PASS
SPOKANE	8	0	0	2.7	D	10.0	PASS
STEVENS	*	*	*	*	*	*	INC
THURSTON	2	0	0	0.7	B	*	INC
WALLA WALLA	*	*	*	*	*	*	INC
WHATCOM	0	0	0	0.0	A	*	INC
WHITMAN	*	*	*	*	*	*	INC
YAKIMA	8	0	0	2.7	D	10.4	PASS

Ozone
- Lewis and Mason Counties now have enough data to receive a grade.

PM
- Benton County's grade dropped from an A to B.
- Grays Harbor County now has enough data to receive a grade.
- King County's grade improved from a D to a C.
- Kitsap and Lewis Counties no longer have enough data to grade.
- Thurston County's grade improved from a C to a B.
- Yakima County's grade dropped from a C to a D.
- Benton, Thurston and Whatcom Counties no longer have sufficient data to grade their annual levels.
- Okanogan County now has PM monitors, but not enough data to grade.
- Clallam and Jefferson Counties no longer have PM monitors.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

WEST VIRGINIA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
BERKELEY	89,362	22,103	9,612	1,872	6,723	2,798	1,066	21,797	4,586
BROOKE	24,785	4,713	4,656	399	2,029	896	416	7,737	1,672
CABELL	94,801	18,940	15,314	1,604	7,602	3,271	1,411	27,008	5,758
GREENBRIER	34,886	7,162	6,307	607	2,805	1,238	573	10,713	2,308
HANCOCK	31,507	6,343	5,936	537	2,549	1,131	532	9,889	2,133
HARRISON	68,303	15,085	10,928	1,278	5,364	2,330	1,029	19,622	4,205
KANAWHA	195,218	41,084	32,162	3,480	15,577	6,801	3,043	57,876	12,430
MARION	56,453	11,149	9,675	944	4,559	1,984	884	16,751	3,587
MARSHALL	34,722	7,389	5,749	626	2,766	1,211	546	10,352	2,228
MERCER	62,070	12,772	10,892	1,082	4,975	2,181	992	18,669	4,010
MONONGALIA	83,918	14,611	8,781	1,238	6,834	2,764	957	19,850	4,162
OHIO	45,410	9,166	8,530	776	3,663	1,620	756	13,982	3,030
RALEIGH	79,175	16,092	12,074	1,363	6,357	2,742	1,182	22,836	4,883
SUMMERS	13,809	2,353	2,554	199	1,154	506	230	4,328	927
WOOD	87,100	19,216	13,749	1,628	6,854	2,980	1,316	25,163	5,399
TOTALS	**1,001,519**	**208,178**	**156,919**	**17,633**	**79,811**	**34,453**	**14,933**	**286,573**	**61,318**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of West Virginia
P.O. Box 3980
Charleston, WV 25339-3980
(304) 342-6600 www.alawv.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BERKELEY	9	0	0	3.0	D
BROOKE	DNC	DNC	DNC	DNC	DNC
CABELL	21	2	0	8.0	F
GREENBRIER	3	0	0	1.0	C
HANCOCK	17	1	0	6.2	F
HARRISON	DNC	DNC	DNC	DNC	DNC
KANAWHA	10	0	0	3.3	F
MARION	DNC	DNC	DNC	DNC	DNC
MARSHALL	DNC	DNC	DNC	DNC	DNC
MERCER	DNC	DNC	DNC	DNC	DNC
MONONGALIA	7	0	0	2.3	D
OHIO	13	1	0	4.8	F
RALEIGH	DNC	DNC	DNC	DNC	DNC
SUMMERS	DNC	DNC	DNC	DNC	DNC
WOOD	18	3	0	7.5	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BERKELEY	5	0	0	1.7	C	16.1	FAIL
BROOKE	8	0	0	2.7	D	16.5	FAIL
CABELL	5	0	0	1.7	C	15.8	FAIL
GREENBRIER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HANCOCK	15	0	0	5.0	F	17.0	FAIL
HARRISON	3	0	0	1.0	C	13.6	PASS
KANAWHA	4	0	0	1.3	C	16.4	FAIL
MARION	4	0	0	1.3	C	14.8	PASS
MARSHALL	5	0	0	1.7	C	15.1	FAIL
MERCER	2	0	0	0.7	B	12.1	PASS
MONONGALIA	7	0	0	2.3	D	14.5	PASS
OHIO	6	0	0	2.0	C	14.7	PASS
RALEIGH	1	0	0	0.3	B	12.6	PASS
SUMMERS	1	0	0	0.3	B	9.8	PASS
WOOD	4	0	0	1.3	C	15.2	FAIL

Ozone
- Berkeley County's grade improved from an F to a D.

PM
- Berkeley, Cabell, Kanawha, Ohio and Wood Counties each improved their grades from a D to a C.
- Raleigh County's grade improved from a C to a B.
- Marion and Ohio Counties each improved from failing to passing.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

WISCONSIN

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ASHLAND	16,719	3,943	2,572	334	1,079	551	238	4,527	971
BROWN	237,166	58,891	25,451	4,988	15,203	7,366	2,777	56,687	11,926
COLUMBIA	54,800	12,443	7,780	1,054	3,574	1,817	762	14,851	3,162
DANE	453,582	98,626	42,608	8,354	30,456	14,350	5,044	106,337	22,182
DODGE	88,057	19,381	12,123	1,642	5,826	2,907	1,187	23,335	4,942
DOOR	28,302	5,460	5,677	462	1,893	1,038	500	9,183	1,990
DOUGLAS	44,045	9,652	6,251	818	2,903	1,473	616	12,000	2,558
FLORENCE	5,032	980	953	83	337	182	85	1,583	342
FOND DU LAC	98,663	22,490	14,114	1,905	6,433	3,263	1,369	26,576	5,670
FOREST	9,950	2,296	1,928	194	641	342	162	2,967	641
GRANT	49,647	10,511	7,814	890	3,318	1,674	713	13,549	2,906
GREEN	34,650	8,311	4,919	704	2,218	1,136	481	9,340	1,994
JEFFERSON	78,497	17,840	9,645	1,511	5,151	2,544	1,003	19,939	4,242
KENOSHA	158,435	41,034	17,359	3,476	10,000	4,873	1,862	37,759	7,960
KEWAUNEE	20,676	4,750	3,070	402	1,343	686	293	5,649	1,206
MANITOWOC	81,864	18,630	12,756	1,578	5,308	2,757	1,207	23,065	4,943
MARATHON	127,733	31,021	16,791	2,627	8,169	4,122	1,694	33,326	7,089
MILWAUKEE	928,018	241,965	112,923	20,494	58,393	28,715	11,362	226,215	47,758
ONEIDA	37,189	7,322	7,290	620	2,484	1,347	641	11,810	2,554
OUTAGAMIE	169,337	43,230	18,792	3,662	10,739	5,239	2,008	40,708	8,574
OZAUKEE	86,025	20,368	11,661	1,725	5,492	2,855	1,212	23,599	5,076

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Wisconsin
13100 West Lisbon Road, Suite 700
Brookfield, WI 53005-2508
(262) 703-4200 www.lungwi.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ASHLAND	*	*	*	*	*
BROWN	4	1	0	1.8	C
COLUMBIA	2	0	0	0.7	B
DANE	1	0	0	0.3	B
DODGE	4	0	0	1.3	C
DOOR	13	1	0	4.8	F
DOUGLAS	DNC	DNC	DNC	DNC	DNC
FLORENCE	0	0	0	0.0	A
FOND DU LAC	2	0	0	0.7	B
FOREST	*	*	*	*	*
GRANT	DNC	DNC	DNC	DNC	DNC
GREEN	1	0	0	0.3	B
JEFFERSON	3	0	0	1.0	C
KENOSHA	20	4	1	9.3	F
KEWAUNEE	10	2	0	4.3	F
MANITOWOC	10	1	0	3.8	F
MARATHON	0	0	0	0.0	A
MILWAUKEE	18	1	0	6.5	F
ONEIDA	0	0	0	0.0	A
OUTAGAMIE	1	0	0	0.3	B
OZAUKEE	13	2	0	5.3	F

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ASHLAND	0	0	0	0.0	A	*	INC
BROWN	2	0	0	0.7	B	10.8	PASS
COLUMBIA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DANE	2	0	0	0.7	B	11.8	PASS
DODGE	3	0	0	1.0	C	10.9	PASS
DOOR	*	*	*	*	*	*	INC
DOUGLAS	*	*	*	*	*	*	INC
FLORENCE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FOND DU LAC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FOREST	*	*	*	*	*	*	INC
GRANT	0	0	0	0.0	A	11.0	PASS
GREEN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JEFFERSON	*	*	*	*	*	*	INC
KENOSHA	1	0	0	0.3	B	10.9	PASS
KEWAUNEE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MANITOWOC	0	0	0	0.0	A	9.4	PASS
MARATHON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MILWAUKEE	3	0	0	1.0	C	12.5	PASS
ONEIDA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
OUTAGAMIE	1	0	0	0.3	B	10.3	PASS
OZAUKEE	0	0	0	0.0	A	*	INC

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
RACINE	194,188	49,255	23,436	4,172	12,263	6,128	2,453	48,891	10,372
ROCK	156,512	39,097	20,190	3,312	9,936	4,985	2,033	40,071	8,509
SAINT CROIX	74,339	18,745	6,886	1,588	4,744	2,276	823	17,243	3,609
SAUK	57,119	13,570	8,312	1,149	3,672	1,876	798	15,436	3,292
SHEBOYGAN	113,958	26,705	15,724	2,262	7,369	3,730	1,551	30,330	6,452
TAYLOR	19,757	4,699	3,046	398	1,268	653	284	5,419	1,159
VERNON	28,702	7,249	4,687	614	1,794	948	430	8,076	1,740
VILAS	22,230	4,112	5,245	348	1,501	836	425	7,595	1,649
WALWORTH	98,334	22,273	12,755	1,887	6,466	3,195	1,276	25,248	5,350
WASHINGTON	124,502	30,190	14,421	2,557	7,979	3,974	1,566	31,530	6,677
WAUKESHA	377,193	90,083	48,016	7,630	24,108	12,343	5,097	100,633	21,511
WINNEBAGO	159,008	35,244	19,954	2,985	10,528	5,179	2,040	40,615	8,605
WOOD	75,195	17,222	12,220	1,459	4,867	2,537	1,126	21,356	4,578
TOTALS	**4,309,424**	**1,037,588**	**537,369**	**87,884**	**277,455**	**137,897**	**55,118**	**1,095,448**	**232,189**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of Wisconsin
13100 West Lisbon Road, Suite 700
Brookfield, WI 53005-2508
(262) 703-4200 www.lungwi.org

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
RACINE	8	4	0	4.7	F
ROCK	4	0	0	1.3	C
SAINT CROIX	0	0	0	0.0	A
SAUK	0	0	0	0.0	A
SHEBOYGAN	18	5	0	8.5	F
TAYLOR	DNC	DNC	DNC	DNC	DNC
VERNON	0	0	0	0.0	A
VILAS	0	0	0	0.0	A
WALWORTH	5	0	0	1.7	C
WASHINGTON	6	0	0	2.0	C
WAUKESHA	4	0	0	1.3	C
WINNEBAGO	*	*	*	*	*
WOOD	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
RACINE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ROCK	*	*	*	*	*	*	INC
SAINT CROIX	*	*	*	*	*	*	INC
SAUK	*	*	*	*	*	*	INC
SHEBOYGAN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TAYLOR	*	*	*	*	*	*	INC
VERNON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
VILAS	0	0	0	0.0	A	6.8	PASS
WALWORTH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WASHINGTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WAUKESHA	2	0	0	0.7	B	12.8	PASS
WINNEBAGO	*	*	*	*	*	*	INC
WOOD	*	*	*	*	*	*	INC

Ozone
- Brown County's grade improved from an F to a C.
- Columbia, Dane, Fond Du Lac and Outagamie Counties each improved their grade from a C to a B.
- Florence and Saint Croix Counties each improved their grade from a B to an A.
- Jefferson, Walworth, Washington and Waukesha Counties each improved their grade from a D to a C.
- Winnebago County no longer has enough data to grade.
- Ashland and Forest Counties now have ozone monitors, but not enough data to grade.

PM
- Ashland County now has enough data to receive a grade.
- Brown, Dane and Waukesha Counties each improved their grade from a C to a B.
- Dodge County's grade dropped from a B to a C.
- Door, Douglas, Jefferson, Rock, Saint Croix, Taylor, Winnebago and Wood Counties no longer have enough data to grade.
- Grant County's grade improved from a B to an A.
- Milwaukee County's grade improved from an F to a C.
- Forest County now has PM monitors, but not enough data to grade.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

WYOMING

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
CAMPBELL	36,721	9,714	2,046	823	2,072	1,090	357	7,924	1,665
CONVERSE	12,515	2,920	1,489	247	731	413	169	3,357	722
FREMONT	36,310	8,772	5,108	743	2,100	1,196	511	9,872	2,123
LARAMIE	85,296	20,478	10,112	1,734	4,961	2,724	1,073	21,521	4,558
SHERIDAN	27,163	5,702	4,214	483	1,633	948	419	8,012	1,731
TETON	18,964	3,512	1,440	297	1,185	629	215	4,701	980
TOTALS	**216,969**	**51,098**	**24,409**	**4,327**	**12,682**	**7,000**	**2,744**	**55,387**	**11,779**

(1) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.

American Lung Association of the Northern Rockies
825 Helena Avenue
Helena, MT 59601-3459
(406) 442-6556 www.lungusa.org/northernrockies

HIGH OZONE DAYS 2002-2004[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
CAMPBELL	*	*	*	*	*
CONVERSE	DNC	DNC	DNC	DNC	DNC
FREMONT	DNC	DNC	DNC	DNC	DNC
LARAMIE	DNC	DNC	DNC	DNC	DNC
SHERIDAN	DNC	DNC	DNC	DNC	DNC
TETON	0	0	0	0.0	A

PARTICLE POLLUTION DAYS 2002-2004[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
CAMPBELL	0	0	0	0.0	A	6.2	PASS
CONVERSE	0	0	0	0.0	A	3.7	PASS
FREMONT	2	0	0	0.7	B	9.1	PASS
LARAMIE	0	0	0	0.0	A	4.9	PASS
SHERIDAN	1	0	0	0.3	B	10.0	PASS
TETON	0	0	0	0.0	A	*	INC

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Fremont and Sheridan Counties each improved their grade from a C to a B.
- Converse and Fremont Counties now have enough data to grade their annual levels.

(1) Grades for ozone are given only to counties with ozone monitors. (2) Grades for particle pollution are given only in counties with particle pollution monitors. See Appendix A for the methodology for grading. Asterisks (*) indicate that sufficient data were not available to grade that county. DNC indicates that data on that particular pollutant was not collected in that county.

Appendix A: Description of Methodology

Statistical Methodology: The Air Quality Data

Data Sources

The data on air quality throughout the United States were obtained from the U.S. Environmental Protection Agency's Air Quality System (AQS), formerly called Aerometric Information Retrieval System (AIRS) database. The American Lung Association contracted with Dr. Allen S. Lefohn, A.S.L. & Associates, Helena, Montana, to characterize the hourly averaged ozone concentration information and the 24-hour averaged $PM_{2.5}$ concentration information for the 3-year period for 2002-2004 for each monitoring site.

Design values for the annual $PM_{2.5}$ concentrations by county were collected from data previously summarized by EPA and were used as received from EPA October 12, 2005 in personal correspondence from Mark Schmidt, EPA.

Ozone Data Analysis

The 2002, 2003, and 2004 AQS hourly ozone data were used to calculate the daily 8-hour maximum concentration for each ozone-monitoring site. The data were considered for a 3-year period for the same reason that EPA uses 3 years of data to determine compliance with the ozone: to prevent a situation in any single year, where anomalies of weather or other factors create air pollution levels, which inaccurately reflect the normal conditions. The highest 8-hour daily maximum concentration in each county for 2002, 2003, and 2004, based on the EPA-defined ozone season, was identified.

Using these results, A.S.L. & Associates prepared a table by county that summarized, for each of the 3 years, the number of days the ozone level was within the ranges identified by EPA based on the EPA Air Quality Index:

0.000 – 0.064 ppm	Good (Green)
0.065 – 0.084 ppm	Moderate (Yellow)
0.085 – 0.104 ppm	Unhealthy for Sensitive Groups (Orange)
0.105 – 0.124 ppm	Unhealthy (Red)
0.125 – 0.374 ppm	Very Unhealthy (Purple)

No data capture criteria were used to eliminate monitoring sites. All data within the ozone season were used in the analysis because it was the goal to identify the number of days that 8-hour daily maximum concentrations occurred within the defined ranges.

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, red, or purple. Multiple monitor readings on the same day in the same county counted as only one day.

Short-term Particle Pollution Data Analysis

A.S.L. & Associates identified the maximum daily 24-hour AQS $PM_{2.5}$ concentration for each county in 2002, 2003, and 2004 with monitoring information. Using these results, A.S.L. & Associates prepared a table by county that summarized, for each of the 3 years, the number of days the maximum of the ***daily*** $PM_{2.5}$ concentration was within the ranges identified by EPA based on the EPA Air Quality Index:

from 0.0 $\mu g/m^3$ to 15.4 $\mu g/m^3$	Good (Green)
from 15.5 $\mu g/m^3$ to 40.4 $\mu g/m^3$	Moderate (Yellow)
from 40.5 $\mu g/m^3$ to 65.4 $\mu g/m^3$	Unhealthy for Sensitive Groups (Orange)
from 65.5 $\mu g/m^3$ to 150.4 $\mu g/m^3$	Unhealthy (Red)
from 150.5 $\mu g/m^3$ to 250.4 $\mu g/m^3$	Very Unhealthy (Purple)
greater than or equal to 250.5 $\mu g/m^3$	Hazardous (Maroon)

No data capture criteria were used to eliminate monitoring sites. All data were used in the analysis because it was the goal to identify the number of days that the maximum in each county of the ***daily*** AIRS $PM_{2.5}$ concentration occurred within the defined ranges. Only 24-h averaged PM data were used. Included in the analysis are data collected using only FRM and FEM methods, which reported 24-h 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.

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, red, or purple. Multiple monitor readings on the same day in the same county counted as only one day.

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 for each county calculated using the Air Quality Index as noted above. The number of orange days experienced by each county was assigned a factor of 1; red days were assigned a factor of 1.5 and purple days were assigned a factor of 2. By multiplying the total number of days within each category by their assigned factor, a total was determined. Because the monitoring data was collected over a three-year period, the total was divided by three to determine the weighted average. Each county's grade was determined using the weighted average. Counties were ranked by weighted average. Metropolitan areas were ranked by the highest weighted average among the counties in the Census Bureau-defined Metropolitan Statistical Area. In 2003, the U.S. Census Bureau published revised

definitions for the nation's Metropolitan Statistical Areas. Therefore, comparisons between MSAs of the State of the Air reports from 2000 to 2003 and the State of the Air reports in 2004 and later should be made with caution.

All counties with a weighted average of zero (corresponding to no exceedances of the 8-hour standard over the three year period) were given a grade of "A." Counties with a weighted average of 0.3 to 0.9 (corresponding to 1 to 2 orange days) received a "B." Counties receiving a "C" had only 3 to 6 days over the standard, including at most one red day, and scored a weighted average of 1.0 to 2.0. Counties received a "D" if they had a weighted average of 2.1 to 3.2, which meant they had 7 to 9 days over the standard. Counties with weighted averages of 3.3 or higher (corresponding to approximately the 8-hour standard) received an "F." These counties generally had at least 10 orange days or 9 days over the standard with at least one or more days in the red or purple category. The number of days for an "F" grade was set to roughly correlate with the number of days that would place a county in nonattainment for the ozone standard. For short-term particle pollution, the number of days required for an F would roughly approximate a 99th percentile form of the $PM_{2.5}$, a form the American Lung Association supports.

Grading System

Grade	Weighted Average	Approximate Number of Allowable Orange/Red/Purple days
A	0.0	None
B	0.3 to 0.9	1 to 2 orange days with no red
C	1.0 to 2.0	3 to 6 days over the standard: 3 to 5 orange with no more than 1 red OR 6 orange with no red
D	2.1 to 3.2	7 to 9 days over the standard: 7 total (including up to 2 red) to 9 orange with no red
F	3.3 or higher	9 days or more over the standard: 10 orange days or 9 total including at least 1 or more red or purple

Weighted averages allow comparisons to be drawn based on severity of air pollution. For example, if one county had 9 orange days and 0 red days, it would earn a weighted average of 3.0 and a D grade. However, another county which had only 8 orange days, but it also had 2 red days, which signify days with more serious air pollution, would receive a 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 standard and the 24-hour $PM_{2.5}$. EPA determines whether a county violates the standard based on the 4th 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, while still meeting EPA's 1997 ozone standard or the 1-hour ozone standard set in 1979.

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 EPA's determination of violations of the national ambient air quality standard for annual $PM_{2.5}$ of 15 $\mu g/m^3$, as reported October 12, 2005 in personal correspondence from Mark Schmidt, EPA. Counties that EPA listed as being in attainment of the standard were given grades of "Pass." Counties EPA listed as being in nonattainment were given grades of "Fail." Where insufficient data existed for EPA to determine attainment or nonattainment, those counties received a grade of "Incomplete." Counties were ranked by design value. Metropolitan areas were ranked by the design value among the counties in the Census Bureau-defined Metropolitan Statistical Area as of 2003. The 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 or not the air quality in a county meets the standard.

With the assistance of the State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials, all state and local agencies were provided the opportunity to review and comment on the data in draft tabular form. The Lung Association reviewed all discrepancies with the agencies and, if needed, with A.S.L. & Associates. Questions about the annual PM design values were referred to Mr. Schmidt of EPA, who reviewed and had final decision on those determinations. 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.

Calculations of Populations-at-Risk

Presently county-specific measurements of the number of persons with chronic lung disease and other chronic conditions are not generally available. (The primary exception to this is asthma, as state-specific estimates for adult asthma are available through one national survey discussed below.) In order to assess the magnitude of lung disease and other chronic conditions at the state and county levels, we have employed a synthetic estimation technique originally developed by the U.S. Bureau of the Census. This method uses age-specific national estimates of self-reported lung disease to project the prevalence of lung disease by county

Population Estimates

The U.S. Census Bureau estimated data on the total population of each county in the United States for 2004. The Census Bureau also estimated the age specific breakdown of the population by county.

Prevalence Estimates

Chronic Bronchitis, Emphysema and Pediatric Asthma. In 2004, the National Health Interview Survey (NHIS) estimated the nationwide annual prevalence of diagnosed chronic bronchitis at 9.05 million; the nationwide lifetime prevalence of emphysema was estimated at 3.57 million. The NHIS estimates the prevalence

of diagnosed pediatric asthma to be over 6.2 million under age 18.

Due to the revision of the Health Interview Survey questionnaire, prevalence estimates from the *American Lung Association State of the Air 2000* cannot be compared to later publications. Estimates for chronic bronchitis and emphysema can be compared to the *American Lung Association State of the Air 2001* through the *American Lung Association State of the Air 2004* reports. Furthermore, estimates for chronic bronchitis and emphysema cannot be summed since they represent different types of prevalence estimates.

Pediatric asthma prevalence estimates from this year's report can only be compared to those in the *American Lung Association State of the Air 2005* report, due to another change to the National Health Interview Survey.

Local area prevalence of chronic bronchitis, emphysema and pediatric asthma are estimated by applying age-specific national prevalence rates from the 2004 NHIS to age-specific county-level resident populations obtained from the U.S. Bureaus of the Census web site. Prevalence estimates for chronic bronchitis and emphysema are calculated for those 18-44, 45 to 64 and 65 and older. The prevalence estimate for pediatric asthma is calculated for those under age 18.

Adult Asthma. In 2004, the Behavioral Risk Factor Surveillance System (BRFSS) survey indicated that approximately 8.2% of adults residing in the United States reported currently having asthma. The information on adult asthma obtained from the Behavioral Risk Factor Surveillance System survey cannot be compared with pediatric asthma estimates that are derived from the National Health Interview Survey.

The prevalence estimate for adult asthma is calculated for those 18 to 44, 45 to 64 and 65 and older. Local area prevalence of adult asthma is estimated by applying age-specific state prevalence rates from the 2004 BRFSS to age-specific county-level resident populations obtained from the U.S. Bureaus of the Census web site.

Cardiovascular Disease Estimates. All cardiovascular disease estimates were obtained from the *American Heart Association: Heart Disease and Stroke Statistics—2005 Update*. According to this report, 70.1 million Americans suffer from one or more types of cardiovascular disease.

Local area prevalence of cardiovascular disease is estimated by applying age-specific prevalence rates from the 2005 American Heart Association report to age-specific county-level resident populations obtained from the U.S. Bureaus of the Census web site.

Diabetes Estimates. In 2004, the National Health Interview Survey estimated the nationwide lifetime prevalence of diabetes at 15.1 million. Local area prevalence of diabetes are estimated by applying age-specific national prevalence rates from the 2004 NHIS to age-specific county-level resident populations obtained from the U.S. Bureaus of the Census web site. Prevalence estimates for diabetes are calculated for those 18-44, 45 to 64 and 65 and older.

Limitations of Estimates. Since the statistics presented by the NHIS and the BRFSS are based on a sample, they will differ (due to random sampling variability) from figures that would be derived from a complete census, or case registry of people in the U.S. with these diseases. The results are also subject to reporting,

non-response and processing errors. These types of errors are kept to a minimum by methods built into the survey.

Additionally, a major limitation of both surveys is that the information collected represents self-reports of medically diagnosed conditions, which may underestimate disease prevalence since not all individuals with these conditions have been properly diagnosed. However, the NHIS is the best available source that depicts the magnitude of chronic disease on the national level and the BRFSS is the best available source for state-specific adult asthma information. The conditions covered in the survey may vary considerably in the accuracy and completeness with which they are reported.

Local estimates of chronic diseases are scaled in direct proportion to the base population of the county and its age distribution. No adjustments are made for other factors that may affect local prevalence (e.g. local prevalence of cigarette smokers or occupational exposures) since the health surveys that obtain such data are rarely conducted on the county level. Because the estimates do not account for geographic differences in the prevalence of chronic and acute diseases, the sum of the estimates for each of the counties in the United States may not exactly reflect the national estimate derived by the NHIS or state estimates derived by the BRFSS.

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Beginning our second century, the American Lung Association works to prevent lung disease and promote lung health. Asthma is the leading serious chronic childhood illness. Lung diseases and breathing problems are the primary causes of infant deaths in the United States today. Smoking remains the nation's number one preventable cause of chronic illness. Lung disease death rates continue to increase while other major causes of death have declined.

The American Lung Association has long funded vital research to discover the causes and seek improved treatments for those suffering with lung disease. We are the foremost defender of the Clean Air Act and laws that protect citizens from secondhand smoke. The Lung Association teaches children the dangers of tobacco use and helps teenage and adult smokers overcome addiction. We help children and adults living with lung disease to improve their quality of life. With your generous support, the American Lung Association is "Improving life, one breath at a time."

For more information about the American Lung Association
or to support the work we do, call
1-800-LUNG-USA (1-800-586-4872)
or log on to ***www.lungusa.org****.*

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