AMERICAN LUNG ASSOCIATION®

State of the Air 2005

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The American Lung Association assumes sole responsibility for the content of the ***American Lung Association State of the Air 2005***.

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air quality

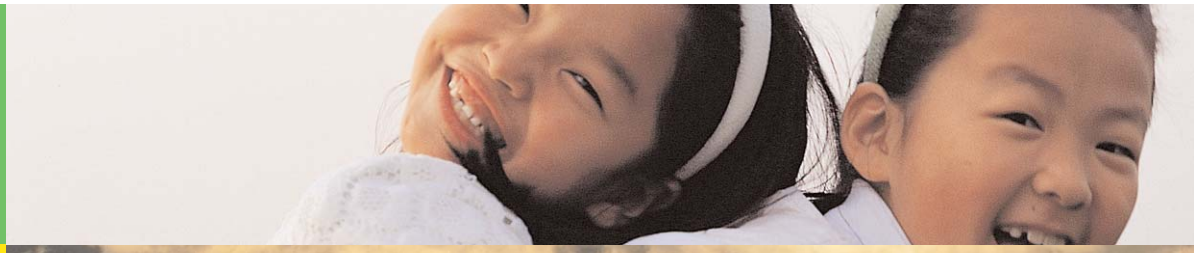
good	
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Photo by Edward Draklys

Based on the Environmental Protection Agency Air Quality chart

affects you

Executive Summary

Air pollution levels improved in many parts of the nation during the years 2001-2003, but millions of Americans still faced dangerous levels of air pollution. The *American Lung Association State of the Air 2005* 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 2005 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 ozone remains a persistent threat across large parts of the United States.

Some of the facts from this report card on air pollution are below, taking a look at the nation as a whole:

- **Over 52 percent of the U.S. population lives in counties that have unhealthful levels of either ozone or particle pollution.**
  Over 152 million Americans live in 390 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—49 percent—lives in areas with unhealthful levels of ozone.**
  Counties that were graded F for ozone levels have a combined population of 142.7 million. Almost half of all Americans are living in counties where the air quality places them at risk for decreased lung function, respiratory infection, lung inflammation and aggravation of respiratory illness.

- **Over 26 percent of the U.S. population lives in areas with unhealthful short-term levels of particle pollution.**
  Over 76.5 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.

- **One in five people in the United States lives in an area with unhealthful year-round levels of particle pollution.**
  Some 58.3 million Americans suffer from chronic exposure to particle pollution. Even when levels are fairly low, over time exposure to particles can increase risk of hospitalization for asthma, damage to the lungs and significantly increase the risk of premature death.

- **About 50.2 million Americans—nearly 17 percent—live in 47 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 disease, a cardiovascular disease or diabetes. Those groups include:

- **Adult and Pediatric Asthma—**Over 3.1 million children and over 8.4 million adults with asthma live in parts of the United States with very high levels of ozone. Over 4.6 million adults and nearly 1.7 million children with asthma live in areas with high levels of short-term particle pollution. Three and a half million adults and nearly 1.3 million children with asthma live in counties with unhealthful levels of year-round particle pollution.

- **Older and Younger—**Over 16.3 million adults age 65 and over and nearly 36.7 million children age 18 and under live in counties with unhealthful ozone levels. Over 8.8 million seniors and over 19.7 million children live in counties with unhealthful short-term levels of particle pollution. Over 6.7 million seniors and nearly 15.1 million children live in counties with unhealthful levels of year-round particle pollution.

- **Chronic Bronchitis and Emphysema—**Over 4.2 million people with chronic bronchitis and 1.5 million with emphysema live in counties with unhealthful ozone levels. Nearly 2.3 million people with chronic bronchitis and 802,000 with emphysema live in counties with unhealthful levels of short-term particle pollution. Over 1.7 million people with chronic bronchitis and over 610,000 with emphysema live in counties with unhealthful year-round levels of particle pollution.

- **Cardiovascular Disease—**Over 18.3 million Americans with cardiovascular diseases live in areas with unhealthful levels of short-term particle pollution; 13.9 million live in counties with unhealthful levels of year-round particle pollution. Cardiovascular diseases include heart disease, heart attacks and strokes.

- **Diabetes—**Over 3.6 million Americans with diabetes live in areas with unhealthful levels of short-term particle pollution; 2.8 million live in counties with unhealthful levels of year-round particle pollution. Research indicates that diabetics face risks from particle pollution's threat to 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 2005* also discusses key steps needed to improve the air we all breathe. Those steps include:

- **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 putting into place what 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 Environmental Protection Agency (EPA) issued proposed rules in 2003 that would give states the tools to clean up these plants. The rules need to be stronger and, most of all, made final so work can begin.

Individuals can do a great deal to help reduce air pollution outdoors as well. Here are some simple, but effective ways:

- **Reduce driving.** 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.

- **Refuel cars after dark.** Gasoline emissions evaporating while you fill up your gas tank contribute to ozone formation. Filling up after dark helps prevents the sunlight from turning those gases into ozone.

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

- **Send a message to decisionmakers.** 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.

good

The benefits of cleaning up air pollution

have exceeded the costs by as much as...

42 to 1

Resumen ejecutivo

Los niveles de contaminación de aire mejoraron en varios lugares del país durante los años 2001 al 2003, pero millones de norteamericanos vivían todavía con niveles peligrosos de contaminación de aire. El informe *State of the Air 2005 (Estado del Aire) de la American Lung Association* presenta información sobre la contaminación del aire en cada estado y condado del país, utilizando los datos más actualizados y confiables disponibles para efectuar comparaciones a nivel nacional.

Este informe publica un boletín de calificaciones para cada condado sobre dos de los contaminantes más dominantes: ozono (*smog*) y partículas suspendidas (*soot*). Además, el informe de este año muestra que el ozono sigue siendo una amenaza persistente en gran parte de los Estados Unidos.

Se describen a continuación algunas de las conclusiones a nivel nacional del boletín de calificaciones sobre la contaminación del aire:

- **Más del 52 por ciento de la población de los Estados Unidos vive en condados que tienen niveles insalubres de ozono o de partículas suspendidas.** Más de 152 millones de norteamericanos viven en 390 condados en los que son expuestos a niveles insalubres de contaminación del aire, ya sea en forma de ozono, contaminación crónica de partículas o contaminación a corto plazo de partículas.

- **Casi la mitad de la población de los Estados Unidos, el 49 por ciento, vive en regiones con niveles insalubres de ozono.**
  Los condados con calificaciones aplazadas con respecto a niveles de ozono tenían una población global de 142.7 millones de personas. Casi la mitad de todos los norteamericanos viven en condados en los que corren el riesgo de tener una función pulmonar disminuida, infecciones respiratorias, inflamación pulmonar y agravamiento de enfermedades respiratorias debido a la baja calidad del aire.

- **Más del 26 por ciento de la población norteamericana vive en zonas cuyos niveles de contaminación a corto plazo de partículas son insalubres.**
  Más de 76.5 millones de norteamericanos viven en regiones donde están expuestos a niveles insalubres de contaminación a corto plazo de partículas. Se ha comprobado que la exposición a corto plazo, o aguda, a la contaminación de partículas aumenta la incidencia de ataques al corazón, derrames cerebrales y visitas a la sala de emergencia por problemas de asma y enfer-

medades cardiacas, y, peor aún, aumenta el riesgo de muerte.

- **Una de cada cinco personas en los Estados Unidos vive en una región con niveles insalubres de contaminación crónica de partículas.** Aproximadamente 58.3 millones de norteamericanos sufren de exposición crónica a la contaminación de partículas. Aunque los niveles sean relativamente bajos, la exposición a partículas puede aumentar a largo plazo el riesgo de internación por asma y daño pulmonar, y aumentar significativamente el riesgo de muerte prematura.

- **Aproximadamente 50.2 millones de norteamericanos, casi el 17 por ciento, viven en 47 condados con niveles insalubres de todos estos contaminantes: ozono, contaminación de partículas de corto plazo y contaminación crónica de partículas.**

Dado que los riesgos por contaminación del aire son tan elevados, la American Lung Association quiere informar a las personas que pueden estar en peligro. Muchos grupos corren riesgos más altos, ya sea por su edad, por la presencia de asma, porque sufren de otra enfermedad crónica pulmonar o cardiovascular, o porque son diabéticos. Estos grupos incluyen:

- **Asma pediátrica y de adultos.** Más de 3.1 millones de niños y más de 8.4 millones de adultos asmáticos viven en regiones de los Estados Unidos con niveles de ozono muy elevados. Más de 4.6 millones de adultos y 1.7 millones de niños asmáticos viven en regiones con niveles altos de contaminación a corto plazo de partículas. Tres millones y medio de adultos, y casi 1.3 millones de niños asmáticos, viven en condados con niveles insalubres de contaminación crónica de partículas.

- **Personas mayores y menores de edad.** Más de 16.3 millones de adultos de 65 años de edad o mayores, y casi 36.7 millones de niños de 18 años de edad o menores viven en condados con niveles insalubres de ozono. Más de 8.8 millones de personas de edad avanzada y más de 19.7 millones de niños viven en condados con niveles insalubres de contaminación a corto plazo de partículas. Más de 6.7 millones de personas de edad avanzada y casi 15.1 millones de niños viven en condados con niveles insalubres de contaminación crónica de partículas.

- **Bronquitis crónica y enfisema.** Más de 4.2 millones de personas con bronquitis crónica y 1.5 millones con enfisema viven en condados con niveles insalubres de ozono. Casi 2.3 millones de personas con bronquitis crónica y 802,000 con enfisema viven en condados con niveles insalubres de contaminación a corto plazo de partículas. Más de 1.7 millones de personas con bronquitis crónica y más de 610,000 con enfisema viven en condados con niveles insalubres de contaminación crónica de partículas.

- **Enfermedades cardiovasculares.** Más de 18.3 millones de norteamericanos con enfermedades cardiovasculares viven en regiones con niveles insalubres de contaminación a corto plazo de partículas; 13.9 millones viven en condados con niveles insalubres de contaminación crónica de partículas. Las enfermedades cardiovasculares son las enfermedades cardiacas, ataques al corazón y derrames cerebrales.

- **Los diabéticos.** Más de 3.6 millones de norteamericanos con diabetes viven en regiones con niveles insalubres de contaminación a corto plazo de partículas; 2.8 millones viven en condados con niveles insalubres de contaminación crónica de partículas. Las investigaciones indican que los diabéticos corren el riesgo de desarrollar enfermedades cardiovasculares si se exponen a la contaminación de partículas.

Además de analizar la calidad del aire de cada condado del país por medio de monitores de ozono y contaminación de partículas, el informe también describe los pasos más importantes que hay que tomar para mejorar la calidad del aire que respiramos todos. Estos pasos incluyen:

- **Proteger la Ley de Aire Limpio.** La American Lung Association está muy preocupada por la amenaza que se cierne sobre una de las leyes de salud pública más efectivas aprobadas en la historia, la Ley de Aire Limpio (Clean Air Act). Esta amenaza proviene de propuestas legislativas para eliminar algunas disposiciones claves de la ley, y por las continuas demoras en concretar lo que los científicos nos han dicho que es necesario para limpiar la contaminación del aire. La American Lung Association ha iniciado acciones legales para proteger esta valiosa herramienta para limpiar el aire, y alienta a todos los ciudadanos a comunicarse con sus miembros del Congreso para proteger la Ley de Aire Limpio.

- **Limpiar las usinas contaminantes.** Uno de los contribuyentes industriales más grandes a la insalubridad del aire, sobre todo a la contaminación de partículas en la región Este de los Estados Unidos, son las viejas usinas de electricidad a carbón. La incidencia de muerte, enfermedad y destrucción ambiental causadas por la contaminación de usinas de carbón va en aumento. La Agencia de Protección Ambiental (EPA) publicó en 2003 reglas recomendadas que darían a los estados las herramientas necesarias para limpiar estas usinas. Estas reglas se tienen que hacer más estrictas y, sobre todo, se tienen que poner en vigencia, para que podamos comenzar de una buena vez con las tareas necesarias.

Los individuos pueden contribuir también en gran medida a reducir la contaminación del aire exterior. Éstas son algunas maneras simples pero efectivas de contribuir:

- **Maneje menos.** Combine viajes, camine, ande en bicicleta, comparta carros

o camionetas, y use buses, subterráneos u otras alternativas en vez de manejar. Las emisiones de vehículos son una de las fuentes de contaminación del aire más grandes. Apoye los planes comunitarios para desarrollar alternativas de transporte que no requieran vehículos, como por ejemplo los planes para construir aceras, sendas para bicicletas y sistemas de tránsito masivo.

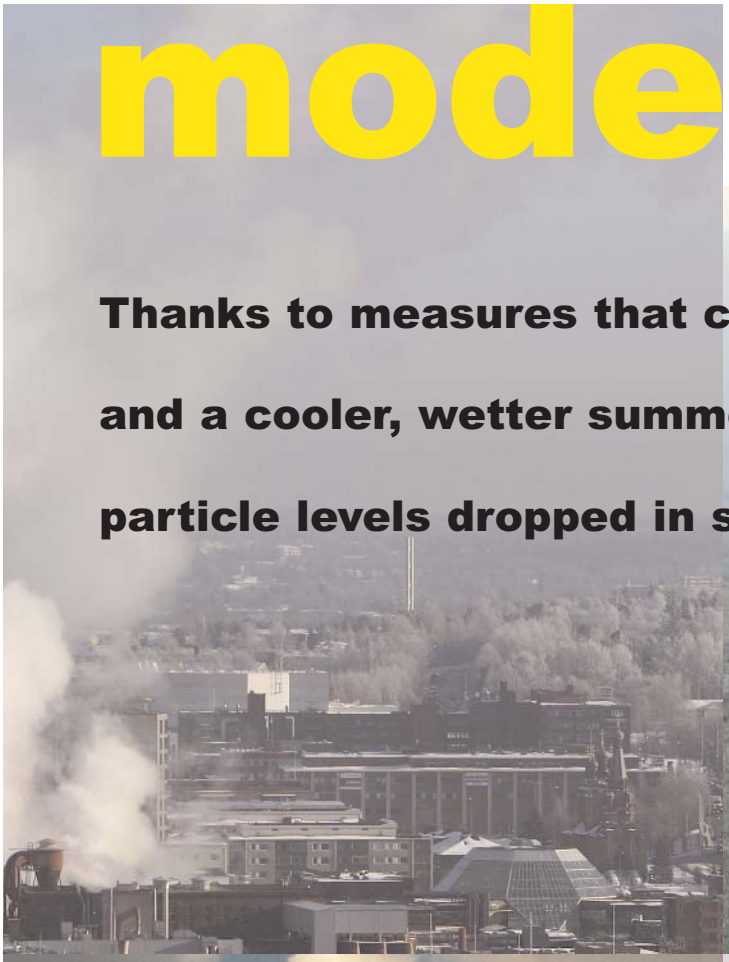
- **Cargue el tanque de gasolina después del anochecer.** Las emisiones de gasolina que se evaporan cuando carga el tanque contribuyen a la formación de ozono. Si llena el tanque después del anochecer evitará que la luz del sol convierta esos gases en ozono.

- **No queme madera o basura.** La quema de leña o residuos es una de las fuentes de contaminación de partículas más grandes del país. Si tiene que usar un hogar o estufa para calefacción, conviértalos para que funcionen con gas natural en vez de leña, ya que el gas produce muchas menos emisiones. Recicle y guarde los residuos para usar como abono orgánico. Deseche todos los demás residuos en forma apropiada. No los queme. Apoye los esfuerzos de su comunidad para prohibir la quema al aire libre de desperdicios de construcción y de jardinería.

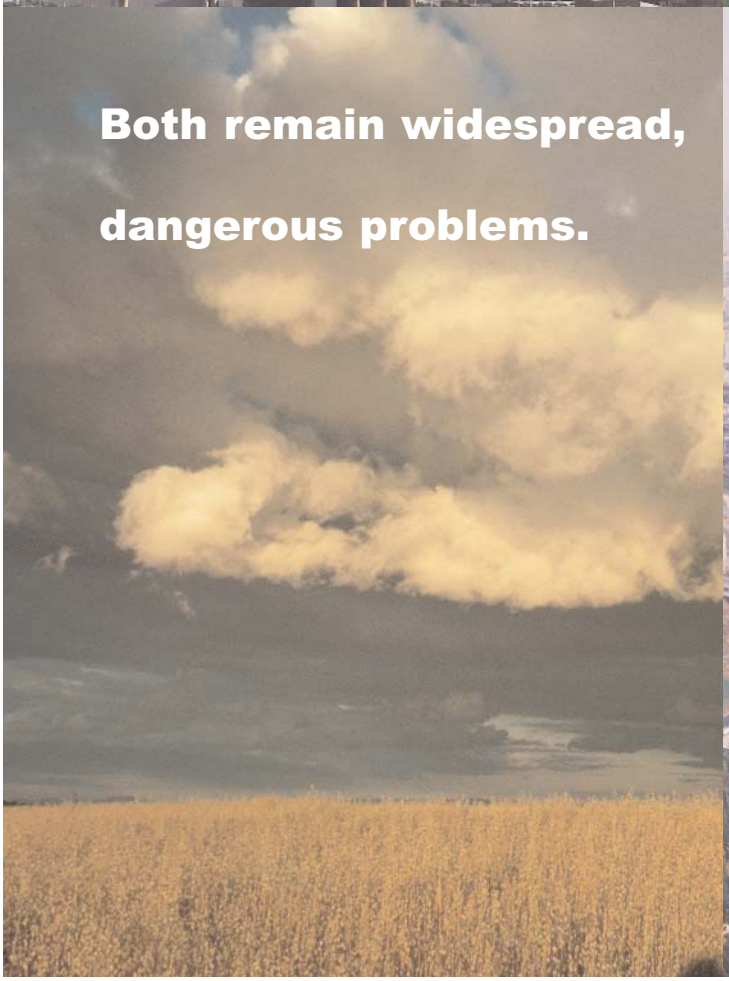
- **Participe.** Participe en las revisiones de los planes de contaminación del aire que se realicen en su comunidad y apoye los esfuerzos estatales y locales para limpiar la contaminación del aire.

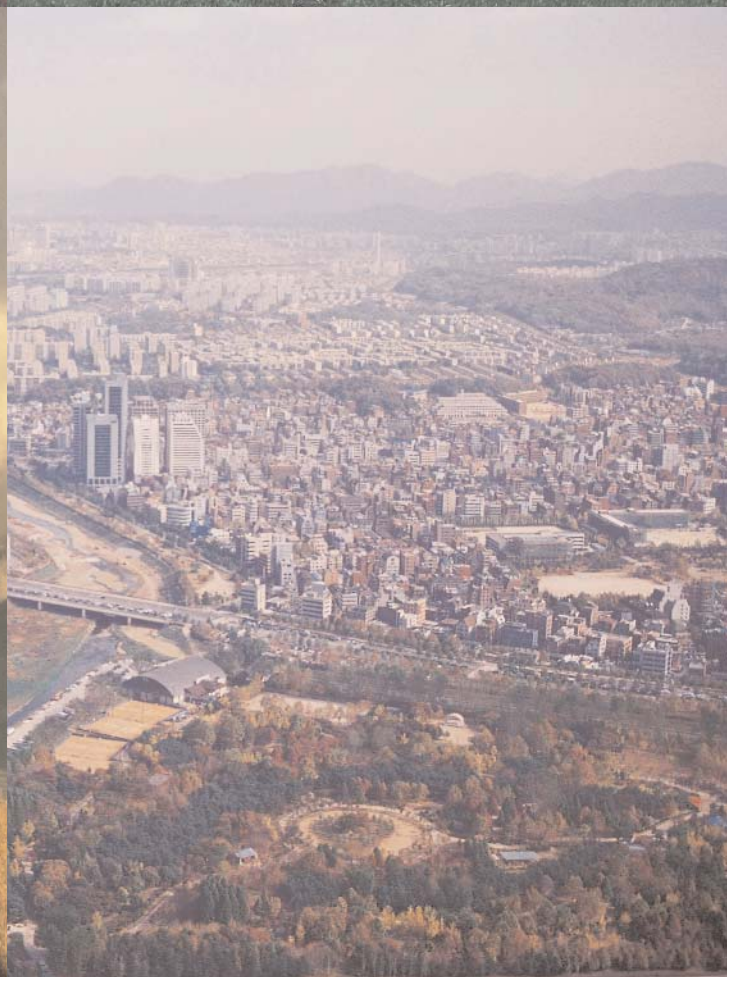
- **Envíe un mensaje a sus legisladores.** Envíe un e-mail o fax a su representante legislativo para urgirlo a proteger la Ley de Aire Limpio. Para ver lo fácil que es, visite **www.lungusa.org**.

moderate



Thanks to measures that cleaned up pollution and a cooler, wetter summer in 2003, ozone and particle levels dropped in some places.





Both remain widespread, dangerous problems.

Introduction

Outdoor air pollution takes a tremendous toll on our nation's health. Millions of people, of all ages and backgrounds, live in places where pollution in the air makes it difficult, even dangerous to breathe. The American Lung Association is committed to ensuring clean air across the nation to reduce this threat. Each year, the American Lung Association assesses the quality of the air in counties solely to help these millions of people understand what the air is like in their home county and in terms familiar to most of us.

The *American Lung Association State of the Air 2005* examines the two most pervasive air pollutants: ozone and $PM_{2.5}$ or particle pollution.[1] While these are not the only outdoor air pollutants, they are the two most dangerous because of their toxicity and their prevalence.

This report deliberately limits the grading to counties that have air quality monitors, but air pollution does not respect political boundaries. Blown by the winds or formed mid-air in complex chemical reactions, air pollution is not limited to the areas where the states and local governments have placed monitors. Taken together, the monitors provide a picture of the air pollution in a larger region, a picture that shapes the efforts to clean up the pollution. This report solely grades the individual counties, but describes the broader situation in each region of the country in the chapter entitled "National and Regional Analysis."

This report can help you understand what the air is like in your home county.

Este informe le puede ayudar a comprender cómo es el aire en el condado donde vive.

Particle Pollution

Of the two, particle pollution is the more deadly. Particle pollution remains a widespread problem, especially in large parts of the eastern United States and California. This report looks at the presence of particle pollution in several ways. Tables form the core of the report, with each state's short-term and year-round particle grades for each county that has a particle monitor. These data come from a network of monitors in over 700 counties established in 1998 and 1999 following EPA's adoption of a new health standard to address particle pollution in 1997.

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

The analyses found a general decline in particle pollution from the 2004 report by the American Lung Association, thanks in part to programs put in place to clean up acid rain by reducing 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 levels of this pollutant across the nation 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 report. This slight 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. The cooler, wetter summer in 2003 also contributed to this decline.[4] EPA speculates that these declines may be coming from controls put in place to clean up coal-fired power plants in the Eastern United States.[5] If so, this trend will likely persist in future reports, reflecting the impact of additional control measures that were finally installed on plants as of May 2004.

Millions Are At Risk

Millions of people 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.

- 152 million Americans-52 percent of the U.S. population-live in 390 counties where they are exposed to unhealthful levels of air pollution in the form of either ozone or short-term levels or year-round levels of particle pollution.

- 52 million Americans-nearly 17 percent of the population-live in 47 counties with unhealthful levels of all three: ozone and particle pollution in both short-term and year-round levels.

Ozone

Even with the downturn in ozone levels, this report finds that nearly half of the people living in the United States—49 percent—live in 353 counties with unhealthful levels of ozone pollution. Included are nearly 143 million Americans, an estimate that understates the problem considerably since it only includes counties where ozone monitors exist and have accumulated three years of data. Of those 143 million, many are especially at risk, including:

- 8.4 million adults with asthma
- 3.1 million children with asthma
- 4.2 million people with chronic bronchitis
- 1.5 million people with emphysema
- 36.7 million children age 18 and under and
- 16.3 million adults age 65 and over.

Particle pollution

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

- Over one-quarter of the population-76.5 million-live in 94 counties with unhealthful short-term levels of particle pollution and

- One in five of the U.S. population-58 million-live in 82 counties with chronically unhealthful particle levels.

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. All totaled, millions of especially endangered Americans are living in areas where particle pollution levels place them at risk.

- 19.7 million children 18 and under live in areas with unhealthful short-term levels of particle pollution; 15.1 million live in areas with unhealthful year-round levels.

- 8.8 million adults 65 and older live in areas with unhealthful short-term levels of particle pollution; 6.7 million live in areas with unhealthful year-round levels.

- 4.6 million adults with asthma live in areas with unhealthful short-term levels of particle pollution; 3.5 million live in areas with unhealthful year-round levels.

- 1.7 million children with asthma live in areas with unhealthful short-term levels of particle pollution; 1.3 million live in areas with unhealthful year-round levels.

- 2.3 million people with chronic bronchitis live in areas with unhealthful short-term levels of particle pollution; 1.7 million live in areas with unhealthful year-round levels.

- 802,000 adults with emphysema live in areas with unhealthful short-term levels of particle pollution; 610,000 live in areas with unhealthful year-round levels.

- 18.3 million people with cardiovascular diseases live in areas with unhealthful short-term levels of particle pollution; 13.9 million live in areas with unhealthful year-round levels.

- 3.6 million people with diabetes live in areas with unhealthful short-term levels of particle pollution; 2.8 million live in areas with unhealthful year-round levels.

152 million Americans live in areas with unhealthful levels of air pollution.

152 millones de norteamericanos viven en regiones con niveles insalubres de contaminación del aire.

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

Because millions are exposed and millions are at risk, the American Lung

Association produces the *American Lung Association State of the Air* each year to alert individuals, families, 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 that 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, now for short-term particle pollution.

The Air Quality Index is, in turn, 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 µg/m3. However, EPA set the Air Quality Index for particles to acknowledge that levels below 65 µg/m3 are harmful to public health.[6]

To evaluate the year-round levels of particle pollution for any monitored county, the *American Lung Association State of the Air 2005* uses the decision of EPA in its determination whether the 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.

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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. More 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. The Particle Pollution Report: Current Understanding of Air Quality and Emissions through 2003. December 2004.

[3] U.S. Environmental Protection Agency. National Air Quality and Emissions Trends Report, 2003 Special Studies Edition. Washington, DC.: U.S. Government Printing Office; 2003. EPA Publication No. 454/R-03-005. **http://www.epa.gov/oar/aqtrnd03/**.

[4] U.S. Environmental Protection Agency. The Ozone Report: Measuring Progress through 2003. April 2004.

[5] U.S. Environmental Protection Agency. Section 126 Rule: Revised Deadlines. 2002. 40 CFR 97 63:21522-30.

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

National and Regional Analysis

National Analysis

Air quality in the nation improved as a whole during 2001-2003 with fewer unhealthful days and fewer counties getting failing grades than in previous *American Lung Association State of the Air* reports. This progress occurred despite having more counties that were monitored for ozone and particle pollution. For ozone, the picture is brighter than in previous years: the number of days with unhealthful levels of ozone pollution was the lowest since 1996-1998, the period covered by the first *American Lung Association State of the Air* report in 2000. Days of unhealthful levels of particle pollution also dropped from last year's report.

EPA attributes these improvements to several factors. Weather certainly played a part in ozone levels in several regions. Although 2002, like 1998, featured a hot, dry summer that escalated ozone levels in the eastern states, 2003 saw record and near-record rainfall and much cooler temperatures in those same states. EPA cites lower emissions from cars, trucks, electric power plants and solvents as also contributing to the reduced ozone levels.[1]

Why are there differences between the American Lung Association's and EPA's lists of counties with ozone and particle pollution problems?

In 2004, EPA announced two important lists of counties with unhealthful levels of ozone and particle pollution when it made the formal designations of "nonattainment" areas. EPA's official announcements start the work of the state and local governments to clean up the sources of ozone and particle pollution. EPA's designations are critical to cleaning up pollution across the nation. They are based on standards adopted in 1997. However, those designations are not made annually and don't easily convey to the public how areas compare in air quality or how areas vary in air quality over time. In addition, current science indicates that air pollution may be harmful at levels below those standards. The American Lung Association uses the Air Quality Index (AQI), which EPA set up to communicate air quality information to the public, in its calculations. The Lung Association's formula is based on the public health criteria of how many days a county enters the unhealthful ranges, according to the AQI. This allows the Lung Association to provide information in a format easily understood by the public—school grades—and readily tracked over time. However, to provide as cautious an estimate as possible, the Lung Association only grades counties that have air quality monitors. By contrast, EPA's designations are designed to include counties that contribute to the problem of pollution in an area whether or not they have a monitor to show what levels actually exist in that county.

For the decline in particle pollution, EPA cites the Acid Rain Program for reductions in the eastern states and, in the west, programs targeting direct emissions of particles. Congress created the Acid Rain Program in the 1990 amendments to the Clean Air Act to reduce the harm over 20 years to the environment and to visibility from acids formed in the air from sulfur dioxide and nitrogen oxide emitted by elec-

tric utilities.[2] EPA credits 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.[3]

Despite these improvements, much clearly remains to be done to combat ongoing air quality problems. 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 between 2001-2003, compared to 2000-2002, the period covered by the last report, *American Lung Association State of the Air 2004*. This analysis covers the most current quality assured data available nationwide at press time. While some states have data from 2004 that have been quality assured, all states are not required to complete the data for 2004 until July 1, 2005.

Regional Analyses

Ozone and particle pollution can flow easily across the nation and around the world, often far from the sources that created them. 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 occurred from the *American Lung Association State of the Air 2004* report. Analyses cover the state and metropolitan areas, as defined by the U.S. Census. 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-NJ-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. Most states in New England saw their unhealthful ozone days increase slightly, though the grades generally remained unchanged. Much of this ozone may come from transported pollution added to local sources. A few counties improved with fewer days in the unhealthful ranges. Looking at particle pollution, most New England states had the same or more days with unhealthy levels. Several saw their grades decline.

Connecticut, Maine, Massachusetts and Rhode Island had no change in grades for ozone since the 2004 report, but generally slightly more days in the unhealthy range. In addition, they all had counties where the number of days with unhealthful levels of particle pollution increased so much so that their grades dropped from the previous report. Only one county in Connecticut had unhealthful levels of year-round particle pollution. There were no changes in their grades for year-

round particle pollution. Hancock County, ME ranked 20th on the list of cleanest counties year-round for particle pollution.

New Hampshire and Vermont had a slight improvement in ozone days in 2001-2003, while their number of unhealthful days of particle pollution remained unchanged. There were no changes in their grades for year-round particle pollution.

Thanks to their location as suburbs of one of the nation's largest metropolitan areas, the New York-Newark-Bridgeport, NY-NJ-CT-PA metropolitan area, parts of Connecticut were included in the 9th most ozone-polluted city in the nation, the 25th city most polluted by short-term particle pollution and tied for 12th most polluted by long-term particles. Connecticut has the 13th most ozone-polluted county in the nation: Fairfield County.

Region 2
New Jersey, New York, Puerto Rico

Region 2. The nation's largest city, New York-Newark-Bridgeport, NY-NJ-CT-PA metropolitan area, ranks 9th in the 25 most ozone-polluted cities, 25th most polluted by short-term particle pollution, and tied for 12th most polluted by long-term particles. These are worse rankings than in the 2004 report, due in part to the increase in ozone and particle pollution days and in part by the improvement of other areas. Philadelphia-Camden-Vineland, PA-NJ-DE-MD ranked 10th most ozone-polluted city and 20th on the most polluted by short-term particles. Buffalo-Niagara-Cattaraugus, NY ranked 20th in the list of most ozone-polluted cities. Allentown-Bethlehem-Easton, PA-NJ ranked 22nd on the most polluted for short-term particles list. Like New England, these states face pollution blown in from outside of the state as well as that generated by local sources.

Both ozone and short-term particle pollution was generally worse in counties in New York. New York County moved from 22nd last year to 15th most polluted county for year-round particle pollution. Still, no grades for year-round particle pollution changed in New York.

Some counties in New Jersey recorded increases in the number of ozone and particle pollution days while others showed decreases, though their grades remained generally stable. New Jersey still has two counties, Camden and Ocean, which are ranked as the 15th and 16th most ozone-polluted counties in the nation. Good news in New Jersey: Gloucester County's air improved enough to drop off the list of 25 most ozone-polluted counties and Hudson County's year-round particle pollution levels dropped enough to move to a passing grade. Union County continued with failing grades for year-round particle levels.

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 had seven cities or parts of cities on the list of 25 cities most polluted by short-term particles: Pittsburgh-New Castle, PA ranked 4th; Washington-Baltimore-Northern Virginia, DC-MD-VA-WV ranked 12th; Weirton-Steubenville, WV-OH ranked 17th; Philadelphia-Camden-Vineland, PA-NJ-DE-MD ranked 20th; Allentown-Bethlehem-Easton, PA-NJ ranked 22nd; Harrisburg-Carlisle-Lebanon, PA ranked 24th; and the Pennsylvania suburbs of the New York-Newark-Bridgeport, NY-NJ-CT-PA metro area ranked at 25th. The Mid-Atlantic has had historic problems with air pollutants blown in from outside the region, added to locally developed pollution. This region was second only to

the California-dominated Region 9 in the number of metropolitan areas ranked as among the most polluted by particle pollution and tied for second with the upper Midwest (Region 5) for ozone.

Six cities or parts of cities in this region are also on the list of most ozone-polluted. Topping this region's list is New York-Newark-Bridgeport, NY-NJ-CT-PA, ranked 9th; followed by Philadelphia-Camden-Vineland, PA-NJ-DE-MD at 10th; and Washington-Baltimore-Northern Virginia, DC-MD-VA-WV in 11th place. Pittsburgh-New Castle, PA ranks 17th followed by Youngstown-Warren-East Liverpool, OH-PA at 18th. Rounding out the list of most ozone-polluted is Lancaster, PA in 25th place.

Seven cities or parts of cities from the Mid-Atlantic rank in the 25th worst for year-round particle pollution as well. Headed by Pittsburgh-New Castle, PA at 4th worst, the list includes: Weirton-Steubenville, WV-OH tied at 10th; the Pennsylvania suburbs of the New York-Newark-Bridgeport, NY-NJ-CT-PA metro area at tied at 12th; Charleston, WV at 17th; Lancaster, PA and York-Hanover-Gettysburg, PA tied for 18th and Huntington-Ashland, WV-KY-OH tied for 24th.

Delaware and the District of Columbia had a slight improvement in the number of unhealthful days for ozone and slightly more unhealthful days for particle pollution during 2001-2003 over 2000-2002. None of the changes were substantial enough to shift their grades. The District of Columbia also saw its short-term particle pollution levels drop enough that it slipped off the list of worst "counties" in that category. There were no changes in their grades for year-round particle pollution. One county in Delaware and the District of Columbia monitored unhealthful levels year-round of particle pollution.

In Maryland, Anne Arundel County and Prince George's County reduced their short-term particle pollution levels enough to improve their grades. However, Baltimore City, MD, ranked as the 16th most polluted county by short-term particle pollution. Maryland also has two of the 25 most ozone-polluted counties in the nation: Harford County, ranked 17th and Anne Arundel, ranked 19th. Fortunately, ozone levels in Cecil County, MD improved enough to knock that county off the list of 25 most ozone-polluted counties. Three counties in Maryland had unhealthful levels year-round of particle pollution.

Year-round particle pollution remained a problem in Pennsylvania, which landed three counties on the list of those experiencing the worst levels: Allegheny County ranked 6th; while Lancaster County and York County tied for 24th worst. Some counties in Pennsylvania recorded increases in the number of ozone and particle pollution days while others showed decreases, though their grades remained generally stable. However, there were significantly more days with unhealthful levels of short-term particle pollution in 2001-2003 than in 2000-2002. Chester County moved onto the list of most ozone-polluted counties in the nation ranked at 24th. Eleven Pennsylvania counties monitored unhealthful levels year-round of particle pollution.

Virginia counties generally had higher numbers of unhealthy ozone and particle pollution days in 2001-2003 than in 2000-2002. However, there was good news for Virginia: two counties and one city saw their year-round particle pollution levels drop enough to move from failing to passing grades.

West Virginia counties had similar or slightly more unhealthful ozone and particle pollution days and two counties on the list of those most polluted year-round by particle pollution: Hancock County and Kanawha County, WV, ranked 18th and 23rd respectively. There were no changes in West Virginia county grades for year-round particle pollution, as nine counties continue to report unhealthful levels year-round.

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 2001-2003. Every state had 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 ranked 10th most polluted by short-term particle pollution and tied for 15th most polluted year-round by particle pollution. Louisville-Elizabethtown-Scottsburg, KY-IN tied 13th for short-term particle pollution and ranked 21st for year-round levels. Parts of Kentucky are included in the Cincinnati-Middletown-Wilmington, OH-KY-IN metropolitan area, which tied for 10th most polluted by particles year round and ranked 18th for short term particle pollution as well. Atlanta-Sandy-Springs-Gainesville, GA ranked 9th on the list of cities most polluted year-round by particle pollution. Huntington-Ashland, WV-KY-OH tied for 24th on the list of cities most polluted by particles year round. Charlotte-Gastonia-Salisbury, NC-SC ranked 12th on the list of most ozone-polluted cities, followed by Knoxville-Sevierville-La Follette, TN at 15th.

Several cities improved enough to drop off the list of most ozone-polluted cities. Atlanta-Sandy Springs-Gainesville, GA, which had been in the list of the worst ten cities for ozone in the past, disappeared completely from the list. Others dropping off last year's list were Greensboro-Winston-Salem-High Point, NC; Morristown-Newport, TN; and Raleigh-Durham-Cary, NC. For individual counties, Mecklenburg County, NC improved its ozone levels enough to drop off the list of the 25 most ozone-polluted counties.

Deltona-Daytona Beach-Palm Coast, FL ranked on all three lists of the cleanest cities in the nation. Three other cities in Florida ranked among the cleanest cities for particle pollution: Palm Bay-Melbourne-Titusville; Cape Coral-Fort Myers and Port St. Lucie-Fort Pierce. Jacksonville, FL, also made the list of the nation's cleanest cities for ozone.

Several counties in this region also appear on the list of counties with the most unhealthful days for short-term and year-round particle pollution and ozone. Jefferson County, AL ranked 13th on the list for short-term particle pollution and tied for 19th for year-round particle pollution levels. Fulton County, GA, ranked as the 12th most polluted year-round by particle pollution. Jefferson County, KY ranked 17th on the list for short-term particle pollution. Rowan County, NC ranked 18th and Sevier County, TN ranked 25th on the list of most ozone-polluted counties.

In Alabama, four counties improved their grades for ozone from an F to a C, while two other counties improved their grades to a B. For short-term particle pollution, seven counties improved their grades to an A, while five counties improved to a B. Two counties improved their grades for year-round particle pollu-

tion to passing, while Russell County remained with Jefferson County monitoring unhealthful levels.

In Florida, three counties improved their grade for ozone days to an A, while four counties improved to a C, including three that had received an F previously. Two counties improved their grades to a B. Five counties improved their short-term particle pollution grades to an A. There were no changes in grades for year-round particle pollution in Florida, which continues to have no counties monitoring unhealthful levels.

Nine Georgia counties reduced their short-term particle pollution enough to improve their grades since the last report. Four Georgia counties also improved their grades for ozone. Year-round particle pollution grades for four counties improved from failing to passing, but nine counties remain with unhealthful levels of particles year-round.

Six Kentucky counties improved their grades for year-round particle pollution from failing to passing, while five improved their short-term grades. Four Kentucky counties improved their ozone grades from an F to a D or a C. Three other counties also improved their ozone grades. Two Kentucky counties remain with unhealthful levels of particle pollution year-round.

Three counties in Mississippi improved their F grades in ozone to a C or a D. Four other counties also improved their ozone grades. Seven Mississippi counties improved their short-term particle pollution grades. There were no changes in year-round particle pollution grades.

Four North Carolina counties reduced their year-round particle levels enough to move to passing grades, while two counties improved their F grades for short-term particle pollution to a D. Two North Carolina counties improved their ozone grades from an F to a D. Four counties improved their short-term particle pollution grades by one grade, and a county also improved its ozone grade one grade. However, three counties did record enough additional days of short-term particle pollution for their grades to decline by one grade.

Two counties in South Carolina improved their ozone grades from an F to a D, while two other counties improved their ozone grades by one grade. Two counties also improved their particle pollution grades by one grade each. Greenville County, SC improved its grade for year-round particle pollution from failing to passing.

Three Tennessee counties improved their ozone grades from an F to a D. Six counties improved their short-term particle pollution grades by one or more grades, including one county moving from an F to a D. Two counties reduced their year-round particle pollution levels enough to improve to a passing grade. One county had enough additional unhealthful days to drop its short-term particle pollution grade by one grade.

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

Region 5. The upper Midwest states in Region 5 had the most cities with the worst year-round particle pollution levels and ranked second only to the California-dominated Region 9 for the number of cities or parts of cities with the most unhealthful ozone days. This region also had the third highest number of cities ranked worst for particle pollution days. The presence of so many cities

from the upper Midwest on the ozone list is due, in part, to the improvement in ozone levels in the Southeast, which had previously had many cities listed.

Three upper Midwest cities made all three lists of most polluted cities. Detroit-Warren-Flint, MI ranked 6th worst for year-round particle pollution, 11th worst for unhealthful short-term particle pollution days and 20th worst for ozone days. Cleveland-Akron-Elyria, OH ranked 8th worst for short-term unhealthful particle pollution days, 8th worst for year-round particle pollution, and 14th worst for ozone pollution. Chicago-Naperville-Michigan City, IL-IN-WI showed up for the first time on all three lists, tied for 12th worst for year-round particles, and ranking 13th worst for short-term particles and 22nd worst for ozone.

Others on the list for worst ozone days were Youngstown-Warren-East Liverpool, OH-PA at 18th, Columbus-Marion-Chillicothe, OH, at 19th and Sheboygan, WI at 22nd. Three other metropolitan areas in the upper Midwest ranked on the list for worst particle pollution days. Louisville-Elizabethtown-Scottsburg, KY-IN tied for 13th; Weirton-Steubenville, WV-OH ranked 17th; and Cincinnati-Middletown-Wilmington, OH-KY-IN ranked 18th. Eight other upper Midwest cities or parts of cities ranked on the worst year-round particle list: Cincinnati-Middletown-Wilmington, OH-KY-IN and Weirton-Steubenville, WV-OH tied at 10th; St. Louis-St. Charles-Farmington, MO-IL at 14th; Canton-Massillon, OH tied at 15th; Louisville-Elizabethtown-Scottsburg, KY-IN at 21st; Indianapolis-Anderson-Columbus, IN and Columbus-Marion-Chillicothe, OH, tied at 22nd; and Huntington-Ashland, WV-KY-OH tied for 24th.

The Duluth, MN-WI metropolitan area ranked as the 19th cleanest city for year-round particle pollution and made the list of cleanest cities for ozone pollution as well. Other clean cities for ozone in the region are Fargo-Wahpeton, ND-MN, and Wausau-Merrill, WI.

Only one county in the upper Midwest ranked on the list of most ozone-polluted counties: Geauga, OH at 23rd. Six counties ranked among the counties most polluted by short-term and year-round particle-pollution: Cuyahoga, OH ranked at 11th on both lists; Wayne, MI ranked 8th on the year-round list and 15th on the short-term; Lake County, IN at 15th on the year-round and 17th on the short-term; Jefferson County, OH tied at 13th on the year-round and ranked 21st on the short-term; Hamilton County, OH tied at 13th on the year-round and ranked 23rd on the short-term; and Cook County, IL, at 19th on the year-round and tied at 21st on the short-term. In addition, three other counties ranked on the list of worst for year-round particle pollution: Madison County, IL, at 17th; Stark County, OH, at 19th; and Scioto County, OH, at 22nd.

Illinois had two counties that improved their ozone grades, including Hamilton County, which improved from an F to a D. However, other counties' ozone levels were generally unchanged. Two counties improved their short-term particle pollution grades, while two dropped and other counties remained the same. Two Illinois counties reduced their year-round levels of air pollution and reached passing grades.

Two Indiana counties improved their grades for unhealthful short-term particle pollution days, including Clark County, which improved from an F to a D. Three other counties dropped one grade, while most counties remained about the

same. Ozone days also remained the same in most counties. Three counties in Indiana reduced their year-round levels of air pollution and reached passing grades.

In Michigan, six counties had slight increases in days with unhealthy short-term particle pollution resulting in a drop of one grade. Ozone days increased significantly, and two counties grades dropped from a D to an F. There were no changes in grades in Michigan for year-round particle pollution.

Minnesota's air quality remains good overall. Three counties improved their grades for short-term particle pollution, and although two counties' grades dropped slightly, the majority remain the same. There were no changes in grades in Minnesota for year-round particle pollution.

By contrast, several Ohio counties were ranked among the most polluted in the nation. Four counties ranked on the list of most polluted year-round by particle pollution: Cuyahoga County ranked 11th; Hamilton County and Jefferson County tied at 13th; Stark County ranked 19th; and Scioto County ranked 22nd. Geauga County ranked 23rd worst for ozone pollution in the nation, while Cuyahoga County and Hamilton County ranked 11th and 23rd worst for short-term pollution. Overall, the ozone grades in Ohio counties remain relatively unchanged although several counties saw an increase in unhealthful days. Lawrence County's grade for short-term particle pollution improved, but most counties had about the same number of unhealthful days. Two counties reduced their year-round particle pollution and improved their grades from failing to passing. However, Lucas County's grade for year round particle pollutin dropped from a passing to a failing grade.

Wisconsin counties report few days with unhealthful levels of short-term particle pollution, with the exception of Milwaukee County. Two counties improved their short-term particle pollution grades in 2001-2003. One county, Vilas, ranked 23rd among the cleanest counties in the nation for year-round levels of particles. By contrast, ozone levels are a more widespread problem in Wisconsin. The Sheboygan metropolitan area ranked 22nd worst for ozone pollution. While two counties' grades improved, three declined. Many counties reported the same or more unhealthful ozone days. There were no changes to grades for year-round particle pollution in Wisconsin.

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

Region 6. Two metropolitan areas in Texas ranked on the list of most ozone-polluted cities: Houston, TX (the Houston-Baytown-Huntsville, TX metro area) ranked at 6th worst and Dallas-Fort Worth, TX ranked at 8th worst. Harris County, TX and Tarrant County, TX ranked as the 8th and 11th most ozone-polluted counties as well. Good news for some Texans: both Brownsville-Harlingen-Raymondville and Laredo, TX, made the list of cleanest cities for ozone.

Texas reduced the number of days with unhealthful levels of ozone so that five counties improved their failing grades to a D or a C. Harris County had fewer days, but still remains the nation's 8th most ozone-polluted county; while Tarrant County, the nation's 11th most polluted, had more unhealthful ozone days in 2001-2003. Only El Paso County received an F for short-term particle pollution. No Texas counties reported unhealthful levels of year-round particle pollution.

Ozone grades for Arkansas counties remained the same, although the counties with the most ozone problems, Crittenden and Pulaski, had significantly fewer high ozone days. Particle pollution is generally not a problem in Arkansas.

Louisiana parishes saw significant improvement in ozone days with six improving from an F to a C, and six others improving by one or two grades. One city, Fort Polk South-DeRidder, LA, made the list of least ozone-polluted cities. Particle pollution levels remain consistently good in the state.

New Mexico continues to have generally good ozone and particle pollution levels. Farmington, NM ranks as one of the cleanest cities in the nation, landing on all three lists. Santa Fe- Espanola ranks as the 2nd cleanest city for year-round levels of particle pollution. Four counties ranked on the list of cleanest counties year-round for particle pollution: Santa Fe, which tied for 4th cleanest; Grant County, tied for 16th; and Bernalillo County and San Juan County, tied for 23th. Two counties improved one grade each for ozone.

Five counties in Oklahoma improved their ozone grades in 2001-2003; however, Tulsa County had more ozone days and monitoring data weren't available for another perennial high ozone county, Jefferson. Oklahoma continues to have very few days with unhealthful short-term particle pollution levels.

Region 7
Iowa, Kansas, Missouri, Nebraska

Region 7. Most of these four Midwest states have relatively good ozone and particle pollution levels. The most serious problems occur in the St. Louis metro area. The St. Louis-St. Charles-Farmington, MO-IL metropolitan area ranked 14th most polluted year-round for particle pollution.

Thanks to even fewer unhealthful ozone days, three counties in Iowa and two in Kansas improved their ozone grades. Particle pollution days increased slightly, but overall grades are still high in both states, evidence of the relatively low number of unhealthful days. Iowa landed three cities on the list of least polluted for ozone: Ames-Boone, Cedar Rapids and Des Moines-Newton-Pella.

Missouri counties also saw a decline in unhealthful ozone days. Three counties improved their grades, including Platte and Cass Counties in the Kansas City, KS metro area. St. Louis City remains the area with the highest unhealthful number of short-term particle days and year-round levels.

Both counties monitoring ozone in Nebraska continue to report clean air throughout the year. A couple of additional days with unhealthful short-term particle pollution dropped two counties' grades slightly, but overall Nebraska's particle pollution levels are good and remain stable. Scotts Bluff County, NE, tied for 11th cleanest county year-round for particle pollution. Lincoln, NE landed on the list of cleanest cities for ozone pollution in the nation.

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

Region 8. Colorado saw a bad ozone season in 2003 drop the grades of six counties, including two that dropped to an F. However, short-term particle pollution remained stable. Several cities and counties are notably clean. Colorado Springs ranked as one of the cleanest cities for all three lists. Three cities—Fort Collins-Loveland, Grand Junction and Pueblo—made both lists of cleanest cities for particle pollution. Elbert County was the cleanest county in the nation for year round particle pollution. Two other Colorado counties, San Miguel and La Plata were

aslo on the list fof cleanest counites in the nation for year round particle pollution.

North Dakota, South Dakota and Wyoming had no significant changes in 2001-2003. All three states have air that is relatively free of ozone and particle pollution, with only a few unhealthy days for particle pollution each year. Several cities and counties rank high on the cleanest places lists. Cheyenne, WY and Bismarck, ND made both lists of cleanest cities in the nation for particle pollution, with Cheyenne ranking first on the list for lowest year-round levels. Fargo-Wahpeton, ND-MN and Sioux Falls, SD landed on the list of least ozone-polluted cities. Billings County, ND and Laramie County, WY ranked as the 2nd and 3rd cleanest counties for particle pollution year-round, while Burke County and Mercer County in North Dakota, and Meade County in South Dakota, also made the cleanest list.

By contrast, Utah has two metropolitan areas that rank among the nation's most polluted by short-term particles: Salt Lake City-Ogden-Clearfield, UT ranks 6th worst; and Provo-Orem, UT ranks 15th worst on that national list. Salt Lake and Utah Counties ranked 9th and 19th on the list of worst counties for short-term particle pollution, despite Salt Lake County having significantly fewer days in 2001-2003. However, no counties report unhealthful levels year round. Several counties also had somewhat higher numbers of unhealthful ozone days in this report compared to the last. However, the city of Logan, UT-ID landed on the list of cleanest cities for ozone pollution.

Region 9
Arizona, California, Hawaii, Nevada

Region 9. These western states vary greatly in their 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 problems. By contrast, Hawaii continues to rank as one of the states with the least ozone and particle pollution.

California cities and counties continue to dominate the list of places with the highest number of days of high air pollution. Los Angeles-Long Beach-Riverside, CA continues to sit atop all the lists of most polluted cities and its counties. Riverside and San Bernardino top the lists of most polluted counties. Eight other metropolitan areas from California made the list of the worst cities for short-term particle pollution: Fresno-Madera, CA at 2nd; Bakersfield, CA, at 3rd; Sacramento-Arden-Arcade-Truckee, CA-NV at 7th; Visalia-Porterville, CA at 9th; Hanford-Corcoran, CA at 15th; Modesto, CA at 19th, San Diego-Carlsbad-San Marcos, CA at 20th and San Jose-San Francisco-Oakland, CA at 23rd. Most of these same cities rank highest in year-round particle pollution as well: Bakersfield, CA at 2nd; Visalia-Porterville, CA at 3rd; Fresno-Madera, CA, at 5th; Hanford-Corcoran, CA at 7th and Merced, CA tied at 18th.

On the list of most ozone-polluted cities, eight CA cities follow Los Angeles-Long Beach-Riverside, CA at the top: Bakersfield, CA ranked at 2nd; Fresno-Madera, CA at 3rd; Visalia-Porterville, CA at 4th; Merced, CA at 5th; Sacramento-Arden-Arcade-Truckee, CA-NV at 7th; Hanford-Corcoran, CA at 13th; Modesto, CA at 16th; and El Centro, CA at 24th.

On the list of most polluted counties, California has 11 on the list of the worst for short-term particle pollution. Riverside County tops the list in 1st most polluted, followed by no. 2 Fresno; no. 3, Kern; no. 4, Los Angeles no. 6, San

Bernardino; no 8, Orange; no. 10, Sacramento; no. 12, Tulare; no. 19, Kings; no. 24 Stanislaus and at no. 25 San Diego. 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, 5th; Fresno, 7th, Orange 9th, Kings, 10th; and Merced, tied for 24th. California also had good news about air quality as well. Two counties ranked on the list of the cleanest counties year-round for particle pollution: Lake, tied for 4th and Inyo ranked 15th. Two cities, Redding and El Centro, tied for 23rd cleanest city for year round particle pollution.

Some of the same counties rank among the worst for ozone pollution as well, led by San Bernardino County, which had more unhealthful days in 2001-2003 than it had in 2000-2002. Following San Bernardino County are these 13 counties: at no 2, Kern; at no. 3, Fresno; at no. 4, Riverside; at no. 5. Tulare; at no. 6, Los Angeles; at no. 7, Merced; at no. 9, El Dorado; at no. 10, Sacramento; at no. 12, Nevada; at no. 13, Ventura; tied for no. 20, Placer, Mariposa and at no. 22 Kings. Good news: California had 13 counties on the list of cleanest counties in the nation for ozone: Glenn, Lake, Marin, Mendocino, Monterey, Napa, Plumas, San Francisco, San Mateo, Santa Cruz, Siskiyou, Solano and Sonoma County. In addition, Salinas, CA landed on the list of least polluted cities for ozone.

Four counties in California had higher numbers of ozone days that lowered their grades. Eight counties improved their short-term particle pollution grades by recording fewer unhealthful days. Four counties—Butte, Inyo, Solano and Ventura—improved from an F to a D. Most of the 11 counties with continuing year-round particle pollution problems had slightly lower levels in 2001-2003.

By contrast, 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, but Honolulu County, ranked 7th cleanest county for year-round levels of particle pollution. Maui County ranked as the 4th cleanest for year-round particle pollution. Hawaii County is also one 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.

Arizona's air pollution problems occur in Maricopa County, home to Phoenix, which recorded the fewer unhealthful days for ozone and particle pollution in 2001-2003. By contrast, Flagstaff ranked on the list of the cleanest cities for ozone pollution and short-term particle pollution, while Coconino County listed as one of the cleanest counties for ozone pollution.

Clark County in Nevada records that state's highest numbers of unhealthful ozone and particle pollution days, both of which increased in 2001-2003. Reno-Sparks, NV ranked as the 22nd cleanest city for year-round levels of particle pollution. Douglas and White Pine counties made the list of cleanest for ozone.

Region 10
Alaska, Idaho, Oregon, Washington

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

Alaska has two counties, Anchorage and Matanuska-Susitna, which rank 11th and 19th on the list of cleanest counties for year-round particle pollution. The City of Anchorage ranked on both lists for cleanest cities for particle pollution. Fairbanks-North Star County reduced its number of unhealthful levels of particles

in 2001-2003, raising its grade from an F to a D. This report does not cover the massive fires in 2004 that severely elevated particle counts there.

Four Idaho counties improved their grades for short-term particle pollution by recording fewer days with unhealthful levels in 2001-2003.

Oregon's Columbia County ranks as the 14th cleanest county in the nation for year-round levels of particle pollution; Columbia, Harney and Linn counties all made the list of cleanest counties for short-term particle pollution. Albany-Corvallis-Lebanon metropolitan area was the 18th cleanest city for particle pollution year round. Four counties in Oregon improved their short-term particle pollution grades, including Lake and Multnomah counties, where grades improved from an F to a D and C respectively. Oregon suffered a large wildfire in the southern part of the state in 2002 which raised particle levels in nearby counties, including Jackson and Klamath counties.

For Oregon, the highest particle pollution levels are recorded in the mountainous areas in Lane County where the high levels are largely from winter wood smoke from fireplaces and wood stoves. Eugene-Springfield, OR, which encompasses Lane County, ranked 5th worst city for short-term particle pollution in the nation. By contrast, Eugene-Springfield ranked among the cleanest cities in the nation for ozone pollution. Lane County itself ranked 7th, followed by Klamath County at 14th on the list of worst counties for short-term particle pollution, although both counties significantly reduced the number of days they experienced unhealthful particle pollution.

Four counties in Washington also improved their short-term particle pollution grades, including King and Snohomish counties, whose grades moved from an F to a D. Bellingham, WA emerged as one of the cleanest cities in the nation, landing on all three lists of clean cities, including ranking 10th cleanest for year-round levels of particles. The city of Kennewick-Richland-Pasco, WA landed as one of the cleanest in the nation for particle pollution, ranking 6th cleanest for year-round levels. That region includes Benton County, which tied for 20th cleanest county for year-round levels of particle pollution in the nation.

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[1] U.S. Environmental Protection Agency. The Ozone Report: Measuring Progress through 2003. April, 2004.
[2] U.S. Environmental Protection Agency. Acid Rain Program: 2003 Progress Report. September 2004.
[3] U.S. Environmental Protection Agency. The Particle Pollution Report: Current Understanding of Air Quality and Emissions through 2003. December 2004.

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Table 1: *Estimated Populations at Risk from Short-Term Particle Pollution (24-Hour $PM_{2.5}$)*

		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
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
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
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
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
National Population in Counties with $PM_{2.5}$ Monitors	2004	11,731,287	4,497,507	6,985,770	2,383,863	44,661,067	(1)
	2005	13,606,631	5,060,978	7,032,822	2,540,957	50,692,770	11,444,651

		Age Groups				Number of High PM2.5 Days			
	Report Year	Under 18	Over 65	Total Population	Number of Counties	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
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
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
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
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
National Population in Counties with $PM_{2.5}$ Monitors	2004	(2)	25,234,335	212,631,740	726	3,788	548	8	0
	2005	59,470,893	28,046,929	235,287,598	735	3,577	422	5	0

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

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

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
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
National Population in Counties with PM2.5 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

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

(2) 2005 is the first year those 18 and under are 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
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
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
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
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
National Population		2000	(1)	(1)	(1)	(1)
		2001	(3)	(4)	6,337,115	2,089,149
		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	13,606,631	5,060,978	7,032,822	2,540,957

		Age Groups				Number of High Ozone Days[4]		
		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
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
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
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
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
National Population		(2)	22,992,964	185,164,054	678	10,257	1,350	219
		(2)	23,103,750	187,627,908	660	12,805	1,505	209
		(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	28,046,929	235,287,598	723	10,310	1,333	127

(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 is 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 2005 reports CANNOT BE COMPARED to those for 2000 and 2001.

(4) Pediatric asthma estimates for 2004-2005 CANNOT BE COMPARED to 2000-2003 data. The 2004-2005 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 $PM_{2.5}$)*

2005 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]	Diabetes[9]
1	Los Angeles-Long Beach-Riverside, CA	17,262,730	4,773,688	1,726,890	406,241	1,047,189	487,063	163,371	3,845,468	755,712
2	Fresno-Madera, CA	850,325	259,249	82,665	22,062	49,895	22,966	7,676	180,181	35,477
3	Bakersfield, CA	713,087	216,213	65,323	18,400	41,841	19,203	6,268	149,137	29,278
4	Pittsburgh-New Castle, PA	2,503,738	538,346	435,205	45,813	164,460	82,962	35,011	736,454	148,913
5	Eugene-Springfield, OR	330,527	71,413	44,675	6,077	24,088	10,535	3,972	88,181	17,636
6	Salt Lake City-Ogden-Clearfield, UT	1,536,187	476,783	128,067	40,574	77,149	40,491	12,709	308,835	60,295
7	Sacramento-Arden-Arcade-Truckee, CA-NV	2,115,019	540,577	243,989	46,003	132,171	62,814	22,447	511,877	101,597
8	Cleveland-Akron-Elyria, OH	2,944,276	721,823	416,349	61,427	158,085	91,507	35,833	781,539	156,839
9	Visalia-Porterville, CA	390,791	126,408	36,887	10,757	22,353	10,274	3,433	80,469	15,870
10	Birmingham-Hoover-Cullman, AL	1,150,916	281,635	147,392	23,967	64,783	35,264	13,199	294,560	58,774
11	Detroit-Warren-Flint, MI	5,415,338	1,392,569	627,690	118,508	368,210	161,747	58,570	1,330,602	264,494
12	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	7,910,633	1,975,905	800,559	168,150	466,322	235,122	80,473	1,885,083	372,285
13	Louisville-Elizabethtown-Scottsburg, KY-IN	1,323,199	329,497	159,412	28,040	94,091	40,100	14,696	331,990	66,049
13	Chicago-Naperville-Michigan City, IL-IN-WI	9,549,014	2,523,955	1,030,638	214,789	532,303	278,102	96,917	2,241,250	442,939
15	Provo-Orem, UT	406,851	140,373	26,489	11,946	20,133	9,629	2,571	67,209	12,847
15	Hanford-Corcoran, CA	138,564	38,461	10,142	3,273	8,350	3,709	1,052	27,004	5,182
17	Weirton-Steubenville, WV-OH	128,569	26,143	23,950	2,225	7,746	4,384	1,907	39,547	8,037
18	Cincinnati-Middletown-Wilmington, OH-KY-IN	2,089,089	535,904	242,847	45,605	118,183	62,165	22,369	508,620	101,057
19	Modesto, CA	492,233	145649	49,022	12,395	29,206	13,535	4,575	106,966	21,082
20	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	5,922,253	1,461,009	776,459	124,332	355,348	181,142	68,328	1,517,274	302,990
20	San Diego-Carlsbad-San Marcos, CA	2,930,886	748,944	321,719	63,735	183,383	85,592	29,435	682,801	134,659
22	Allentown-Bethlehem-Easton, PA-NJ	768,036	175,992	115,934	14,977	48,414	24,469	9,740	210,541	42,315
23	San Jose-San Francisco-Oakland, CA	7,154,350	1,678,453	809,595	142,836	459,191	218,558	77,280	1,779,325	352,251
24	Harrisburg-Carlisle-Lebanon, PA	640,120	144,727	94,537	12,316	41,368	20,476	8,097	175,796	35,325
25	New York-Newark-Bridgeport, NY-NJ-CT-PA	21,766,731	5,275,035	2,759,958	448,905	1,247,221	664,658	245,683	5,518,674	1,097,159

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

(2) **Total Population** represents the at-risk populations for all counties within the respective MSAs.

(3) Those **18 & Under** and **65 & Over** are vulnerable to PM2.5 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 2003 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 2003 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 2003 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 $PM_{2.5}$)*

2005 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]	Diabetes[9]
1	Los Angeles-Long Beach-Riverside, CA	17,262,730	4,773,688	1,726,890	406,241	1,047,189	487,063	163,371	3,845,468	755,712
2	Bakersfield, CA	713,087	216,213	65,323	18,400	41,841	19,203	6,268	149,137	29,278
3	Visalia-Porterville, CA	390,791	126,408	36,887	10,757	22,353	10,274	3,433	80,469	15,870
4	Pittsburgh-New Castle, PA	2,503,738	538,346	435,205	45,813	164,460	82,962	35,011	736,454	148,913
5	Fresno-Madera, CA	850,325	259,249	82,665	22,062	49,895	22,966	7,676	180,181	35,477
6	Detroit-Warren-Flint, MI	5,415,338	1,392,569	627,690	118,508	368,210	161,747	58,570	1,330,602	264,494
7	Hanford-Corcoran, CA	138,564	38,461	10,142	3,273	8,350	3,709	1,052	27,004	5,182
8	Cleveland-Akron-Elyria, OH	2,944,276	721,823	416,349	61,427	158,085	91,507	35,833	781,539	156,839
9	Atlanta-Sandy Springs-Gainesville, GA	4,929,880	1,318,562	389,845	112,210	252,956	138,358	42,575	1,054,739	205,061
10	Weirton-Steubenville, WV-OH	128,569	26,143	23,950	2,225	7,746	4,384	1,907	39,547	8,037
10	Cincinnati-Middletown-Wilmington, OH-KY-IN	2,089,089	535,904	242,847	45,605	118,183	62,165	22,369	508,620	101,057
12	New York-Newark-Bridgeport, NY-NJ-CT-PA	21,766,731	5,275,035	2,759,958	448,905	1,247,221	664,658	245,683	5,518,674	1,097,159
12	Chicago-Naperville-Michigan City, IL-IN-WI	9,549,014	2,523,955	1,030,638	214,789	532,303	278,102	96,917	2,241,250	442,939
14	St. Louis-St. Charles-Farmington, MO-IL	2,793,856	702,031	357,247	59,743	166,100	84,776	31,743	707,479	141,212
15	Canton-Massillon, OH	407,118	97,939	61,706	8,335	22,024	12,896	5,218	112,025	22,588
15	Birmingham-Hoover-Cullman, AL	1,150,916	281,635	147,392	23,967	64,783	35,264	13,199	294,560	58,774
17	Charleston, WV	306,836	67,586	46,682	5,752	19,444	10,015	4,046	87,273	17,576
18	York-Hanover-Gettysburg, PA	491,375	115,215	67,052	9,805	31,379	15,419	5,927	130,685	26,156
18	Merced, CA	231,574	75,202	20,841	6,400	13,191	6,022	1,959	46,518	9,142
18	Lancaster, PA	482,775	124,674	68,520	10,610	29,877	14,702	5,768	125,415	25,165
21	Louisville-Elizabethtown-Scottsburg, KY-IN	1,323,199	329,497	159,412	28,040	94,091	40,100	14,696	331,990	66,049
22	Indianapolis-Anderson-Columbus, IN	1,912,560	511,695	212,471	43,545	113,077	55,793	19,783	454,173	89,859
22	Columbus-Marion-Chillicothe, OH	1,900,497	476,433	197,869	40,544	100,495	55,993	19,057	446,106	87,931
24	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	7,910,633	1,975,905	800,559	168,150	466,322	235,122	80,473	1,885,083	372,285
24	Huntington-Ashland, WV-KY-OH	286,517	62,088	44,066	5,284	18,836	9,302	3,719	80,354	16,147

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

(2) **Total Population** represents the at-risk populations for all counties within the respective MSAs.

(3) Those **18 & Under** and **65 & Over** are vulnerable to PM2.5 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 2003 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 2003 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 2003 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*

2005 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	Los Angeles-Long Beach-Riverside, CA	17,262,730	4,773,688	1,726,890	406,241	1,047,189	487,063	163,371
2	Bakersfield, CA	713,087	216,213	65,323	18,400	41,841	19,203	6,268
3	Fresno-Madera, CA	850,325	259,249	82,665	22,062	49,895	22,966	7,676
4	Visalia-Porterville, CA	390,791	126,408	36,887	10,757	22,353	10,274	3,433
5	Merced, CA	231,574	75,202	20,841	6,400	13,191	6,022	1,959
6	Houston-Baytown-Huntsville, TX	5,176,061	1,484,751	405,985	126,352	251,995	142,254	44,429
7	Sacramento-Arden-Arcade-Truckee, CA-NV	2,115,019	540,577	243,989	46,003	132,171	62,814	22,447
8	Dallas-Fort Worth, TX	5,784,645	1,630,788	468,325	138,780	283,503	159,336	49,587
9	New York-Newark-Bridgeport, NY-NJ-CT-PA	21,766,731	5,275,035	2,759,958	448,905	1,247,221	664,658	245,683
10	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	5,922,253	1,461,009	776,459	124,332	355,348	181,142	68,328
11	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	7,910,633	1,975,905	800,559	168,150	466,322	235,122	80,473
12	Charlotte-Gastonia-Salisbury, NC-SC	2,025,541	522,707	215,243	44,482	102,533	59,347	20,485
13	Hanford-Corcoran, CA	138,564	38,461	10,142	3,273	8,350	3,709	1,052
14	Cleveland-Akron-Elyria, OH	2,944,276	721,823	416,349	61,427	158,085	91,507	35,833
15	Knoxville-Sevierville-La Follette, TN	804,915	176,364	111,682	15,009	49,898	25,674	9,815
16	Modesto, CA	492,233	145,649	49,022	12,395	29,206	13,535	4,575
17	Pittsburgh-New Castle, PA	2,503,738	538,346	435,205	45,813	164,460	82,962	35,011
18	Youngstown-Warren-East Liverpool, OH-PA	704,863	162,304	117,435	13,812	39,813	22,859	9,566
19	Columbus-Marion-Chillicothe, OH	1,900,497	476,433	197,869	40,544	100,495	55,993	19,057
20	Detroit-Warren-Flint, MI	5,415,338	1,392,569	627,690	118,508	368,210	161,747	58,570
20	Buffalo-Niagara-Cattaraugus, NY	1,242,797	284,048	192,978	24,172	73,136	39,772	16,022
22	Sheboygan, WI	113,376	27,312	15,661	2,324	6,415	3,519	1,356
22	Chicago-Naperville-Michigan City, IL-IN-WI	9,549,014	2,523,955	1,030,638	214,789	532,303	278,102	96,917
24	El Centro, CA	149,232	44,809	15,407	3,813	8,802	4,064	1,380
25	Lancaster, PA	482,775	124,674	68,520	10,610	29,877	14,702	5,768

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

(2) **Total Population** represents the at-risk populations for all counties within the respective MSAs.

(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 2003 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 2003 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 2003 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.

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

						At-Risk Groups						High PM2.5 Days in Unhealthy Ranges 2001-2003	
2005 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	1,782,650	508,894	211,764	43,307	107,143	50,216	17,942	406,693	80,444	81.0	F
2	Fresno	CA	850,325	259,249	82,665	22,062	49,895	22,966	7,676	180,181	35,477	51.5	F
3	Kern	CA	713,087	216,213	65,323	18,400	41,841	19,203	6,268	149,137	29,278	50.0	F
4	Los Angeles	CA	9,871,506	2,695,948	974,944	229,425	600,872	279,077	92,796	2,194,880	430,657	49.5	F
5	Allegheny	PA	1,261,303	270,004	217,804	22,977	82,896	41,689	17,481	368,535	74,455	42.8	F
6	San Bernardino	CA	1,859,678	572,365	154,222	48,708	108,246	49,429	15,615	378,603	74,076	24.2	F
7	Lane	OR	330,527	71,413	44,675	6,077	24,088	10,535	3,972	88,181	17,636	22.8	F
8	Orange	CA	2,957,766	781,268	303,000	66,486	182,347	85,437	29,014	680,424	133,879	22.5	F
9	Salt Lake	UT	924,247	279,374	75,865	23,775	46,834	24,596	7,643	187,029	36,429	20.3	F
10	Sacramento	CA	1,330,711	357,836	143,835	30,452	81,731	38,366	13,314	308,304	60,822	19.5	F
11	Cuyahoga	OH	1,363,888	334,954	208,278	28,505	73,134	42,681	17,220	369,870	74,387	17.7	F
12	Tulare	CA	390,791	126,408	36,887	10,757	22,353	10,274	3,433	80,469	15,870	16.0	F
13	Jefferson	AL	658,141	160,713	88,472	13,677	37,115	20,262	7,719	170,550	34,100	15.5	F
14	Klamath	OR	64,769	16,231	9,906	1,381	4,452	2,039	837	17,841	3,611	14.8	F
15	Wayne	MI	2,028,778	564,093	237,742	48,004	133,842	58,934	21,568	486,926	96,802	14.5	F
16	Baltimore City	MD	628,670	156,189	78,852	13,292	38,661	18,933	6,936	155,736	31,012	12.3	F
17	Lake	IN	487,476	129,244	63,287	10,999	28,921	14,652	5,603	123,790	24,768	12.2	F
17	Jefferson	KY	699,017	169,594	93,315	14,432	51,982	21,586	8,215	182,029	36,340	12.2	F
19	Kings	CA	138,564	38,461	10,142	3,273	8,350	3,709	1,052	27,004	5,182	12.0	F
19	Utah	UT	398,059	137,168	25,580	11,673	19,725	9,409	2,493	65,445	12,497	12.0	F
21	Jefferson	OH	71,888	14,795	13,388	1,259	4,065	2,443	1,063	22,026	4,478	11.7	F
21	Cook	IL	5,351,552	1,385,127	620,097	117,874	298,248	157,488	55,992	1,280,688	253,277	11.7	F
23	Hamilton	OH	823,472	206,939	110,200	17,611	43,630	25,080	9,549	210,802	42,155	11.3	F
24	Stanislaus	CA	492,233	145,649	49,022	12,395	29,206	13,535	4,575	106,966	21,082	10.5	F
25	Philadelphia	PA	1,479,339	371,643	199,941	31,627	92,158	44,636	16,821	372,307	74,207	10.3	F
25	San Diego	CA	2,930,886	748,944	321,719	63,735	183,383	85,592	29,435	682,801	134,659	10.3	F

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

(2) **Total Population** represents the at-risk populations in counties with PM2.5 monitors.

(3) Those **18 & Under** and **65 & Over** are vulnerable to PM2.5 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 2003 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 2003 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 2003 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 (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.

(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, 2001-2003	
2005 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	1,782,650	508,894	211,764	43,307	107,143	50,216	17,942	406,693	80,444	27.8	FAIL
2	San Bernardino	CA	1,859,678	572,365	154,222	48,708	108,246	49,429	15,615	378,603	74,076	25.2	FAIL
3	Los Angeles	CA	9,871,506	2,695,948	974,944	229,425	600,872	279,077	92,796	2,194,880	430,657	23.6	FAIL
4	Kern	CA	713,087	216,213	65,323	18,400	41,841	19,203	6,268	149,137	29,278	21.8	FAIL
5	Tulare	CA	390,791	126,408	36,887	10,757	22,353	10,274	3,433	80,469	15,870	21.3	FAIL
6	Allegheny	PA	1,261,303	270,004	217,804	22,977	82,896	41,689	17,481	368,535	74,455	21.2	FAIL
7	Fresno	CA	850,325	259,249	82,665	22,062	49,895	22,966	7,676	180,181	35,477	19.7	FAIL
8	Wayne	MI	2,028,778	564,093	237,742	48,004	133,842	58,934	21,568	486,926	96,802	19.5	FAIL
9	Orange	CA	2,957,766	781,268	303,000	66,486	182,347	85,437	29,014	680,424	133,879	19.3	FAIL
10	Kings	CA	138,564	38,461	10,142	3,273	8,350	3,709	1,052	27,004	5,182	19.0	FAIL
11	Cuyahoga	OH	1,363,888	334,954	208,278	28,505	73,134	42,681	17,220	369,870	74,387	18.3	FAIL
12	Fulton	GA	818,322	205,526	63,259	17,490	42,858	23,455	7,139	177,873	34,602	18.0	FAIL
13	Hamilton	OH	823,472	206,939	110,200	17,611	43,630	25,080	9,549	210,802	42,155	17.8	FAIL
13	Jefferson	OH	71,888	14,795	13,388	1,259	4,065	2,443	1,063	22,026	4,478	17.8	FAIL
15	Lake	IN	487,476	129,244	63,287	10,999	28,921	14,652	5,603	123,790	24,768	17.7	FAIL
15	New York	NY	1,564,798	276,547	194,576	23,534	98,617	50,526	17,474	406,506	79,642	17.7	FAIL
17	Madison	IL	261,689	62,432	36,380	5,313	15,056	8,124	3,120	68,601	13,723	17.5	FAIL
18	Hancock	WV	31,742	6,432	5,986	547	2,062	1,088	477	9,891	2,008	17.4	FAIL
19	Cook	IL	5,351,552	1,385,127	620,097	117,874	298,248	157,488	55,992	1,280,688	253,277	17.3	FAIL
19	Jefferson	AL	658,141	160,713	88,472	13,677	37,115	20,262	7,719	170,550	34,100	17.3	FAIL
19	Stark	OH	377,519	90,941	57,396	7,739	20,407	11,954	4,842	103,868	20,946	17.3	FAIL
22	Scioto	OH	77,453	18,186	11,666	1,548	4,178	2,436	964	20,867	4,186	17.2	FAIL
23	Kanawha	WV	195,413	41,445	32,413	3,527	12,521	6,508	2,713	57,598	11,636	17.1	FAIL
24	Merced	CA	231,574	75,202	20,841	6,400	13,191	6,022	1,959	46,518	9,142	17.0	FAIL
24	Lancaster	PA	482,775	124,674	68,520	10,610	29,877	14,702	5,768	125,415	25,165	17.0	FAIL
24	York	PA	394,919	92,804	53,761	7,898	25,204	12,403	4,775	105,327	21,078	17.0	FAIL

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

(2) **Total Population** represents the at-risk populations in counties with PM2.5 monitors.

(3) Those **18 & Under** and **65 & Over** are vulnerable to PM2.5 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 2003 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 2003 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 2003 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, February 1, 2005.

(12) Grades are based on EPA's determination of meeting or failure to meet the NAAQS for annual PM 2.5 levels during 2001-2003. 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 2001-2003	
2005 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	San Bernardino	CA	1,859,678	572,365	154,222	48,708	108,246	49,429	15,615	118.2	F
2	Kern	CA	713,087	216,213	65,323	18,400	41,841	19,203	6,268	108.7	F
3	Fresno	CA	850,325	259,249	82,665	22,062	49,895	22,966	7,676	105.8	F
4	Riverside	CA	1,782,650	508,894	211,764	43,307	107,143	50,216	17,942	97.2	F
5	Tulare	CA	390,791	126,408	36,887	10,757	22,353	10,274	3,433	90.0	F
6	Los Angeles	CA	9,871,506	2,695,948	974,944	229,425	600,872	279,077	92,796	71.5	F
7	Merced	CA	231,574	75,202	20,841	6,400	13,191	6,022	1,959	48.0	F
8	Harris	TX	3,596,086	1,049,367	268,963	89,301	173,795	97,493	29,821	39.8	F
9	El Dorado	CA	168,822	39,994	20,146	3,403	10,966	5,307	1,990	37.8	F
10	Sacramento	CA	1,330,711	357,836	143,835	30,452	81,731	38,366	13,314	29.2	F
11	Tarrant	TX	1,559,148	443,112	129,235	37,709	76,178	42,996	13,566	28.8	F
12	Nevada	CA	96,099	19,892	16,252	1,693	6,534	3,282	1,402	25.0	F
13	Ventura	CA	791,130	215,213	82,960	18,315	48,581	22,904	8,006	24.3	F
13	Fairfield	CT	899,152	227,375	117,301	19,350	55,845	27,531	10,525	24.3	F
15	Camden	NJ	513,909	135,238	63,189	11,509	27,019	15,326	5,695	24.0	F
16	Ocean	NJ	546,081	125,072	116,484	10,644	29,402	18,074	8,290	23.0	F
17	Harford	MD	232,175	61,542	24,564	5,237	13,626	6,845	2,424	22.2	F
18	Rowan	NC	133,931	33,054	18,709	2,813	7,103	4,110	1,583	21.8	F
19	Anne Arundel	MD	506,620	125,645	51,708	10,692	30,492	15,180	5,250	21.3	F
20	Mariposa	CA	17,803	3,471	3,056	295	1,229	611	258	20.7	F
20	Placer	CA	292,235	69,061	39,415	5,877	18,853	9,096	3,461	20.7	F
22	Kings	CA	138,564	38,461	10,142	3,273	8,350	3,709	1,052	20.3	F
23	Geauga	OH	93,941	24,466	12,082	2,082	5,016	2,906	1,140	20.2	F
24	Chester	PA	457,393	113,346	54,488	9,646	28,680	13,963	5,143	19.3	F
25	Sevier	TN	75,503	16,673	10,103	1,419	4,669	2,412	919	19.2	F

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

(2) **Total Population** represents the at-risk populations in counties with PM2.5 monitors.

(3) Those **18 & Under** and **65 & Over** are vulnerable to PM2.5 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 2003 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 2003 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 2003 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 (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.

(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]	Design Value[4]	Pass/ Fail[5]
Jefferson	AL	Birmingham-Hoover-Cullman, AL	15.5	F	17.3	FAIL
Fairbanks North Star	AK	Fairbanks, AK	3.2	D	*	INC
Maricopa	AZ	Phoenix-Mesa-Scottsdale, AZ	3.5	F	10.7	PASS
Santa Cruz	AZ		DNC	DNC	11.7	PASS
Pulaski	AK	Little Rock-North Little Rock-Pine Bluff, AR	1.3	C	14.1	PASS
Riverside	CA	Los Angeles-Long Beach-Riverside, CA	81.0	F	27.8	FAIL
Denver	CO	Denver-Aurora-Boulder, CO	3.0	D	10.8	PASS
New Haven	CT	New York-Newark-Bridgeport, NY-NJ-CT-PA	9.2	F	16.7	FAIL
New Castle	DE	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	9.8	F	16.2	FAIL
Washington	DC	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	10.0	F	15.8	FAIL
Broward	FL	Miami-Fort Lauderdale-Miami Beach, FL	1.2	C	8.3	PASS
Leon	FL	Tallahassee, FL	0.0	A	12.4	PASS
DeKalb	GA	Atlanta-Sandy Springs-Gainesville, GA-AL	5.7	F	16.1	FAIL
Fulton	GA	Atlanta-Sandy Springs-Gainesville, GA-AL	4.8	F	18.0	FAIL
Honolulu	HI	Honolulu, HI	2.5	D	5.3	PASS
Ada	ID	Boise City-Nampa, ID	4.0	F	9.1	PASS
Shoshone	ID		1.7	C	12.7	PASS
Cook	IL	Chicago-Naperville-Michigan City, IL-IN-WI	11.7	F	17.3	FAIL
Madison	IL	St. Louis-St. Charles-Farmington, MO-IL	4.3	F	17.5	FAIL
Lake	IN	Chicago-Naperville-Michigan City, IL-IN-WI	12.2	F	17.7	FAIL
Scott	IA	Davenport-Moline-Rock Island, IA-IL	2.0	C	12.5	PASS
Muscatine	IA		1.0	C	13.0	PASS
Wyandotte	KS	Kansas City-Overland Park-Kansas City, MO-KS	1.0	C	13.9	PASS
Jefferson	KY	Louisville-Elizabethtown-Scottsburg, KY-IN	12.2	F	16.9	FAIL
East Baton Rouge	LA	Baton Rouge-Pierre Part, LA	1.3	C	13.1	PASS
Androscoggin	ME	Portland-Lewiston-South Portland, ME	1.0	C	11.1	PASS
Cumberland	ME	Portland-Lewiston-South Portland, ME	0.3	B	11.7	PASS
Baltimore City	MD	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	12.3	F	16.6	FAIL
Hampden	MA	Springfield, MA	6.7	F	*	INC
Plymouth	MA	Boston-Worcester-Manchester, MA-NH	1.3	C	11.2	PASS
Wayne	MI	Detroit-Warren-Flint, MI	14.5	F	19.5	FAIL
Ramsey	MN	Minneapolis-St. Paul-St. Cloud, MN-WI	1.0	C	12.8	PASS
Harrison	MS	Gulfport-Biloxi-Pascagoula, MS	1.0	C	11.4	PASS
Lowndes	MS	Columbus-West Point, MS	1.0	C	13.3	PASS
Jones	MS		0.3	B	14.4	PASS
Saint Louis City	MO	St. Louis-St. Charles-Farmington, MO-IL	4.3	F	15.2	FAIL
Lincoln	MT		4.7	F	16.2	FAIL
Douglas	NE	Omaha-Council Bluffs-Fremont, NE-IA	1.5	C	10.7	PASS
Clark	NV	Las Vegas-Paradise-Pahrump, NV	2.2	D	11.0	PASS
Union	NJ	New York-Newark-Bridgeport, NY-NJ-CT-PA	8.5	F	15.7	FAIL
Dona Ana	NM	Las Cruces, NM	1.3	C	11.5	PASS
Bronx	NY	New York-Newark-Bridgeport, NY-NJ-CT-PA	8.5	F	15.8	FAIL
Guilford	NC	Greensboro—Winston-Salem—High Point, NC	3.0	D	14.0	PASS
Catawba	NC	Hickory-Lenoir-Morganton, NC	0.7	B	15.5	FAIL
Cuyahoga	OH	Cleveland-Akron-Elyria, OH	17.7	F	18.3	FAIL
Lane	OR	Eugene-Springfield, OR	22.8	F	13.4	PASS
Allegheny	PA	Pittsburgh-New Castle, PA	42.8	F	21.2	FAIL
Providence	RI	Providence-New Bedford-Fall River, RI-MA	2.8	D	11.6	PASS
Greenville	SC	Greenville-Spartanburg-Anderson, SC	1.7	C	14.4	PASS
Knox	TN	Knoxville-Sevierville-La Follette, TN	5.5	F	16.4	FAIL
El Paso	TX	El Paso, TX	8.2	F	*	INC
Harris	TX	Houston-Baytown-Huntsville, TX	2.7	D	14.2	PASS
Salt Lake	UT	Salt Lake City-Ogden-Clearfield, UT	20.3	F	14.0	PASS
Richmond City	VA	Richmond, VA	4.0	F	14.0	PASS
Salem City	VA	Roanoke, VA	1.0	C	14.7	PASS
Pierce	WA	Seattle-Tacoma-Olympia, WA	6.7	F	10.6	PASS
King	WA	Seattle-Tacoma-Olympia, WA	2.7	D	11.1	PASS
Snohomish	WA	Seattle-Tacoma-Olympia, WA	3.0	D	11.1	PASS
Hancock	WV	Weirton-Steubenville, WV-OH	5.0	F	17.4	FAIL
Milwaukee	WI	Milwaukee-Racine-Waukesha, WI	3.8	F	13.1	PASS
Waukesha	WI	Milwaukee-Racine-Waukesha, WI	2.0	C	13.2	PASS
Fremont	WY		1.0	C	*	INC
Sheridan	WY		1.0	C	10.4	PASS

(1) States were not included if respective counties got a grade of B or better for the short-term measure and a passing grade for the annual measure.

(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, February 1, 2005.

(5) Grades are based on EPA's determination of meeting or failure to meet the NAAQS for annual PM 2.5 levels during 2001-2003. 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*

ST[1]	COUNTY	Metropolitan Statistical Area	OZONE WGT. AVG.[2]	GRADE[3]
AL	Jefferson	Birmingham-Hoover-Cullman, AL	8.0	F
AZ	Maricopa	Phoenix-Mesa-Scottsdale, AZ	12.5	F
AR	Crittenden	Memphis, TN-MS-AR	7.2	F
CA	San Bernardino	Los Angeles-Long Beach-Riverside, CA	118.2	F
CO	Jefferson	Denver-Aurora-Boulder, CO	8.3	F
CT	Fairfield	New York-Newark-Bridgeport, NY-NJ-CT-PA	24.3	F
DE	New Castle	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	14.5	F
DC	Washington	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	14.0	F
FL	Hillsborough	Tampa-St. Petersburg-Clearwater, FL	3.2	D
GA	Douglas	Atlanta-Sandy Springs-Gainesville, GA-AL	10.5	F
IL	Cook	Chicago-Naperville-Michigan City, IL-IN-WI	12.2	F
IN	Saint Joseph	South Bend-Mishawaka, IN-MI	11.8	F
KS	Sedgwick	Wichita-Winfield, KS	2.0	C
KY	Campbell	Cincinnati-Middletown-Wilmington, OH-KY-IN	11.8	F
LA	East Baton Rouge	Baton Rouge-Pierre Part, LA	8.8	F
ME	York	Portland-Lewiston-South Portland, ME	9.8	F
MD	Harford	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	22.2	F
MA	Barnstable	Barnstable Town, MA	11.3	F
MI	Macomb	Detroit-Warren-Flint, MI	13.8	F
MN	Washington	Minneapolis-St. Paul-St. Cloud, MN-WI	1.0	C
MS	Hancock	Gulfport-Biloxi-Pascagoula, MS	3.0	D
MO	Saint Charles	St. Louis-St. Charles-Farmington, MO-IL	12.7	F
MO	Saint Louis	St. Louis-St. Charles-Farmington, MO-IL	12.7	F
NV	Clark	Las Vegas-Paradise-Pahrump, NV	6.7	F
NH	Rockingham	Boston-Worcester-Manchester, MA-NH	7.0	F
NJ	Camden	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	24.0	F
NM	Dona Ana	Las Cruces, NM	1.7	C
NY	Chautauqua		14.5	F
NC	Rowan	Charlotte-Gastonia-Salisbury, NC-SC	21.8	F
OH	Geauga	Cleveland-Akron-Elyria, OH	20.2	F
OK	Tulsa	Tulsa-Bartlesville, OK	7.5	F
PA	Chester	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	19.3	F
RI	Kent	Providence-New Bedford-Fall River, RI-MA	10.0	F
SC	Spartanburg	Greenville-Spartanburg-Anderson, SC	10.5	F
TN	Sevier	Knoxville-Sevierville-La Follette, TN	19.2	F
TX	Harris	Houston-Baytown-Huntsville, TX	39.8	F
UT	Salt Lake	Salt Lake City-Ogden-Clearfield, UT	5.5	F
VT	Bennington		2.0	C
VA	Fairfax	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	18.2	F
WA	King	Seattle-Tacoma-Olympia, WA	1.0	C
WV	Cabell	Huntington-Ashland, WV-KY-OH	9.7	F
WI	Kenosha	Chicago-Naperville-Michigan City, IL-IN-WI	13.7	F
WI	Sheboygan	Sheboygan, WI	13.7	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 (2001-2003), 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	185,456
Amarillo, TX	233,231
Anchorage, AK	339,288
Bellingham, WA	176,571
Billings, MT	142,961
Bismarck, ND	96,828
Bowling Green, KY	107,647
Brunswick, GA	96,295
Cape Coral-Fort Myers, FL	492,210
Champaign-Urbana, IL	217,320
Cheyenne, WY	84,083
Clarksville, TN-KY	236,700
Coeur d'Alene, ID	117,481
Colorado Springs, CO	572,264
Corpus Christi-Kingsville, TX	438,546
Deltona-Daytona Beach-Palm Coast, FL	530,869
Farmington, NM	122,272
Fayetteville-Springdale-Rogers, AR-MO	378,014
Flagstaff, AZ	121,301
Florence, SC	196,291
Florence-Muscle Shoals, AL	141,499
Fort Collins-Loveland, CO	266,610
Fort Smith, AR-OK	279,777
Gadsden, AL	103,035
Gainesville, FL	239,211
Grand Junction, CO	124,676
Hattiesburg, MS	128,631
Hot Springs, AR	91,188
Houma-Bayou Cane-Thibodaux, LA	197,388
Idaho Falls-Blackfoot, ID	150,127
Jacksonville, NC	147,524
Jonesboro, AR	110,041
Kennewick-Richland-Pasco, WA	209,786
Lafayette-Acadiana, LA	520,805
Lawton, OK	113,890
Lewiston, ID-WA	58,324
Lubbock-Levelland, TX	279,995
Lumberton-Laurinburg, NC	161,513
Midland-Odessa, TX	241,316
Myrtle Beach-Conway-Georgetown, SC	269,681
Ocala, FL	280,288
Palm Bay-Melbourne-Titusville, FL	505,711
Panama City-Lynn Haven, FL	155,193
Pensacola-Ferry Pass-Brent, FL	428,978
Port St. Lucie-Fort Pierce, FL	348,569
Pueblo, CO	148,751
Rapid City, SD	116,596
Rochester, MN	172,459
Salinas, CA	414,449
Santa Fe-Espanola, NM	177,154
Sioux City-Vermillion, IA-NE-SD	156,048
Sioux Falls, SD	198,377
Springfield, MO	384,654
Tallahassee, FL	327,879
Tampa-St. Petersburg-Clearwater, FL	2,531,908
Tucson, AZ	892,798
Tuscaloosa, AL	194,645
Wilmington, NC	293,207

(1) This list represents cities with the lowest levels of short term PM2.5 air pollution. Monitors in these cities reported no days with unhealthful PM2.5 levels.

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

2005 Rank[2]	Design Value[3]	Metropolitan Statistical Area	Population
1	4.9	Cheyenne, WY	84,083
2	5.0	Santa Fe-Espanola, NM	177,154
3	5.3	Honolulu, HI	902,709
4	6.0	Great Falls, MT	79,561
5	6.4	Anchorage, AK	339,288
6	6.5	Kennewick-Richland-Pasco, WA	209,786
7	6.6	Farmington, NM	122,272
8	6.8	Tucson, AZ	892,798
8	6.8	Bismarck, ND	96,828
10	7.4	Bellingham, WA	176,571
11	7.5	Rapid City, SD	116,596
12	7.8	Grand Junction, CO	124,676
12	7.8	Colorado Springs, CO	572,264
14	7.9	Palm Bay-Melbourne-Titusville, FL	505,711
14	7.9	Fort Collins-Loveland, CO	266,610
14	7.9	Fargo-Wahpeton, ND-MN	203,664
17	8.0	Pueblo, CO	148,751
18	8.1	Albany-Corvallis-Lebanon, OR	185,456
19	8.3	Duluth, MN-WI	275,936
19	8.3	Cape Coral-Fort Myers, FL	492,210
21	8.4	Port St. Lucie-Fort Pierce, FL	348,569
22	9.0	Reno-Sparks, NV	374,364
23	9.1	Sarasota-Bradenton-Venice, FL	633,597
23	9.1	Redding, CA	175,650
23	9.1	El Centro, CA	149,232
23	9.1	Deltona-Daytona Beach-Palm Coast, FL	530,869

(1) This list represents cities with the lowest levels of annual PM2.5 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, February 1, 2005.

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

Metropolitan Area	Population
Ames-Boone, IA	109,268
Bellingham, WA	176,571
Brownsville-Harlingen-Raymondville, TX	383,186
Cedar Rapids, IA	46,542
Colorado Springs, CO	572,264
Deltona-Daytona Beach-Palm Coast, FL	530,869
Des Moines-Newton-Pella, IA	572,894
Duluth, MN-WI	275,936
Eugene-Springfield, OR	330,527
Fargo-Wahpeton, ND-MN	203,664
Farmington, NM	122,272
Flagstaff, AZ	121,301
Fort Polk South-De Ridder, LA	84,183
Honolulu, HI	902,709
Jacksonville, FL	1,202,900
Laredo, TX	213,615
Lincoln, NE	277,666
Logan, UT-ID	107,538
Medford, OR	190,077
Mount Vernon-Anacortes, WA	109,234
Salem, OR	362,990
Salinas, CA	414,449
Sioux Falls, SD	198,377
Spokane, WA	431,027
Wausau-Merrill, WI	157,244

(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, State	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
Morgan, AL	Huntsville-Decatur, AL
Tuscaloosa, AL	Tuscaloosa, AL
Anchorage, AK,	Anchorage, AK
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	
Craighead, AR	Jonesboro, AR
Faulkner, AR	Little Rock-North Little Rock-Pine Bluff, AR
Garland, AR	Hot Springs, AR
Jefferson, AR	Little Rock-North Little Rock-Pine Bluff, AR
Marion, 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	
Lake, CA	
Modoc, CA	
Monterey, CA	Salinas, CA
Santa Cruz, CA	San Jose-San Francisco-Oakland, CA
Archuleta, CO	
Delta, CO	
Elbert, CO	Denver-Aurora-Boulder, CO
El Paso, CO,	Colorado Springs, CO
Gunnison, CO	
La Plata, CO	
Larimer, CO	Fort Collins-Loveland, CO
Mesa, CO	Grand Junction, CO
Pueblo, CO	Pueblo, CO
Routt, CO	
Alachua, FL	Gainesville, FL
Bay, FL	Panama City-Lynn Haven, FL
Brevard, FL	Palm Bay-Melbourne-Titusville, FL
Citrus, FL	
Escambia, FL	Pensacola-Ferry Pass-Brent, FL
Hillsborough, FL	Tampa-St. Petersburg-Clearwater, FL
Lee, FL	Cape Coral-Fort Myers, FL
Leon, FL	Tallahassee, FL
Marion, FL	Ocala, FL
Palm Beach, FL	Miami-Fort Lauderdale-Miami Beach, FL
Pinellas, FL	Tampa-St. Petersburg-Clearwater, 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
Maui, HI	
Bonner, ID	
Bonneville, ID	Idaho Falls-Blackfoot, ID
Kootenai, ID	Coeur d'Alene, ID
Nez Perce, ID	Lewiston, ID-WA
Power, ID	Pocatello, ID

Table 6: (continued)

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

County, State	Metropolitan Statistical Area	County, State	Metropolitan Statistical Area
Twin Falls, ID		Cedar, MO	
Champaign, IL	Champaign-Urbana, IL	Greene, MO	Springfield, MO
McHenry, IL	Chicago-Naperville-Michigan City, IL-IN-WI	Monroe, MO	
Randolph, IL		Stoddard, MO	
Rock Island, IL	Davenport-Moline-Rock Island, IA-IL	Gallatin, MT	
Spencer, IN		Rosebud, MT	
Cerro Gordo, IA		Yellowstone, MT	Billings, MT
Emmet, IA		Hall, NE	
Pottawattamie, IA	Omaha-Council Bluffs-Fremont, NE-IA	Lincoln, NE	
Van Buren, IA		Sarpy, NE	Omaha-Council Bluffs-Fremont, NE-IA
Woodbury, IA	Sioux City-Vermillion, IA-NE-SD	Scotts Bluff, NE	
Linn, KS	Kansas City-Overland Park-Kansas City, MO-KS	Washington, NE	Omaha-Council Bluffs-Fremont, NE-IA
Sumner, KS	Wichita-Winfield, KS	Bernalillo, NM	Albuquerque, NM
Christian, KY	Clarksville, TN-KY	Chaves, NM	
Warren, KY	Bowling Green, KY	Grant, NM	
Concordia, LA		Lea, NM	
Jefferson, LA	New Orleans-Metairie-Bogalusa, LA	San Juan, NM	Farmington, NM
Lafayette, LA	Lafayette-Acadiana, LA	Santa Fe, NM	Santa Fe-Espanola, NM
Saint Bernard, LA	New Orleans-Metairie-Bogalusa, LA	Chatham, NC	Raleigh-Durham-Cary, NC
Tangipahoa, LA		Mitchell, NC	
Terrebonne, LA	Houma-Bayou Cane-Thibodaux, LA	Montgomery, NC	
Oxford, ME		New Hanover, NC	Wilmington, NC
York, ME	Portland-Lewiston-South Portland, ME	Onslow, NC	Jacksonville, NC
Schoolcraft, MI		Orange, NC	Raleigh-Durham-Cary, NC
Dakota, MN	Minneapolis-St. Paul-St. Cloud, MN-WI	Robeson, NC	Lumberton-Laurinburg, NC
Olmsted, MN	Rochester, MN	Billings, ND	
Scott, MN	Minneapolis-St. Paul-St. Cloud, MN-WI	Burke, ND	
Stearns, MN	Minneapolis-St. Paul-St. Cloud, MN-WI	Burleigh, ND	Bismarck, ND
Adams, MS		Mercer, ND	
Desoto, MS	Memphis, TN-MS-AR	Caddo, OK	
Forrest, MS	Hattiesburg, MS	Canadian, OK	Oklahoma City-Shawnee, OK
Hancock, MS	Gulfport-Biloxi-Pascagoula, MS	Carter, OK	
Jackson, MS	Gulfport-Biloxi-Pascagoula, MS	Cherokee, OK	
Pearl River, MS		Comanche, OK	Lawton, OK

County, State	Metropolitan Statistical Area
Lincoln, OK	Oklahoma City-Shawnee, OK
Mayes, OK	
Muskogee, OK	
Ottawa, OK	
Pawnee, OK	Tulsa-Bartlesville, OK
Payne, OK	
Seminole, OK	
Columbia, OR	Portland-Vancouver-Beaverton, OR-WA
Harney, OR	
Linn, OR	Albany-Corvallis-Lebanon, OR
Beaufort, SC	
Edgefield, SC	Augusta-Richmond County, GA-SC
Florence, SC	Florence, SC
Georgetown, SC	Myrtle Beach-Conway-Georgetown, SC
Greenwood, SC	
Horry, SC	Myrtle Beach-Conway-Georgetown, SC
Brookings, SD	
Brown, SD	
Jackson, SD	
Meade, SD	Rapid City, SD
Minnehaha, SD	Sioux Falls, SD
Pennington, SD	Rapid City, SD
Dyer, TN	
Maury, TN	Nashville-Davidson-Murfreesboro-Columbia, TN
Montgomery, TN	Clarksville, TN-KY
Sumner, TN	Nashville-Davidson-Murfreesboro-Columbia, TN
Bowie, TX	Texarkana, TX-Texarkana, AR
Brewster, TX	
Ector, TX	Midland-Odessa, TX
Lubbock, TX	Lubbock-Levelland, TX
Montgomery, TX	Houston-Baytown-Huntsville, TX
Nueces, TX	Corpus Christi-Kingsville, TX
Potter, TX	Amarillo, TX
Benton, WA	Kennewick-Richland-Pasco, WA
Lewis, WA	
Whatcom, WA	Bellingham, WA
Door, WI	
Douglas, WI	Duluth, MN-WI
Manitowoc, WI	
Ozaukee, WI	Milwaukee-Racine-Waukesha, WI
Saint Croix, WI	Minneapolis-St. Paul-St. Cloud, MN-WI
Taylor, WI	
Vilas, WI	
Winnebago, WI	Appleton-Oshkosh-Neenah, WI
Wood, WI	
Campbell, WY	
Converse, WY	
Laramie, WY	Cheyenne, WY
Teton, WY	

(1) This list represents counties with the lowest levels of short term PM2.5 air pollution. Monitors in these counties reported no days with unhealthful PM2.5 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	Elbert, CO	4.5
2	Billings, ND	4.7
3	Laramie, WY	4.9
4	Santa Fe, NM	5.0
4	Maui, HI	5.0
4	Lake, CA	5.0
7	Honolulu, HI	5.3
8	San Miguel, CO	5.6
9	La Plata, CO	5.7
10	Burke, ND	5.9
11	Cascade, MT	6.0
11	Anchorage, AK	6.0
11	Scotts Bluff, NE	6.0
14	Columbia, OR	6.1
15	Inyo, CA	6.2
16	Meade, SD	6.3
16	Grant, NM	6.3
16	Mercer, ND	6.3
19	Matanuska-Susitna, AK	6.4
20	Benton, WA	6.5
20	Campbell, WY	6.5
20	Hancock, ME	6.5
23	San Juan, NM	6.6
23	Bernalillo, NM	6.6
23	Sanders, MT	6.6
23	Vilas, WI	6.6

(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 meetst he standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, February 1, 2005.

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

County, State	Metropolitan Statistical Area
Yukon-Koyukuk, AK	
Cochise, AZ	
Coconino, AZ	Flagstaff, AZ
Montgomery, AR	
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	
Solano, CA	San Jose-San Francisco-Oakland, 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	
Baker, FL	Jacksonville, FL
Columbia, FL	
Duval, FL	Jacksonville, FL
Highlands, FL	
Leon, FL	Tallahassee, FL
Volusia, FL	Deltona-Daytona Beach-Palm Coast, FL
Hawaii, HI	
Honolulu, HI	Honolulu, HI
Butte, ID	
Elmore, ID	
Rock Island, IL	Davenport-Moline-Rock Island, IA-IL
Linn, IA	Cedar Rapids, 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
Orleans, LA	New Orleans-Metairie-Bogalusa, LA
Saint Mary, LA	
Carlton, MN	Duluth, MN-WI
Lake, MN	
Saint Louis, MN	Duluth, 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
Valencia, NM	Albuquerque, NM
Swain, NC	
Billings, ND	
Cass, ND	Fargo-Wahpeton, ND-MN
Dunn, ND	
Mc Kenzie, ND	
Mercer, ND	
Oliver, ND	
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
Brewster, TX	
Cameron, TX	Brownsville-Harlingen-Raymondville, TX
Webb, TX	Laredo, TX
Cache, UT	Logan, UT-ID
San Juan, UT	
Clallam, WA	
Clark, WA	Portland-Vancouver-Beaverton, OR-WA
Klickitat, WA	
Skagit, WA	Mount Vernon-Anacortes, WA
Spokane, WA	Spokane, WA
Thurston, WA	Seattle-Tacoma-Olympia, WA
Whatcom, WA	Bellingham, WA
Marathon, WI	Wausau-Merrill, WI
Oneida, 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.


unhealthy...
New research shows diabetics are
threatened by particle pollution.
Nuevos estudios demuestran
que las personas con diabetes
tambien son afectadas por
contaminación de partículas.
for sensitive
groups

Health Effects of Ozone and Particle Pollution

Everyone's had this experience: You're sitting in traffic or driving down a highway behind a large truck with 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 are made up of many complicated ingredients that can do more damage than you might think.

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 life. The evidence accumulates as each month new research studies pour in. Analyses undertaken over the past five years tie air pollution to shorter lives, heart disease, lung cancer, asthma attacks and serious interference with the growth and work of the lungs.

The *American Lung Association State of the Air 2005* looks at the two most common and most dangerous air pollutants: ozone and particle pollution. Both are widespread and unhealthful at levels seen routinely across the nation. Both are intricately connected to that familiar exhaust plume.

Research shows that particle pollution shortens lives.

Las investigaciones demuestran que la contaminación de partículas acorta la vida.

Particle pollution

The dirty, smoky part of that stream of exhaust is made of particle pollution. Twenty-six percent of the nation-76.5 million people-live where the air they breathe has so much particle pollution for so much of the time that their health can be at risk. But what is particle pollution? What can 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 solids 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 in an area. You may not be able to tell when you're breathing particle pollution. And yet it is so dangerous it can take years off your life.

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 body's 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 smaller particles get trapped in the lungs, while the smallest are so minute they can pass through the lungs into the blood stream, just like the essential oxygen molecules.

Researchers categorize particles according to size, grouping them as coarse, fine and ultrafine particles. 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 slip through the lung 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 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 the large, coal-fired power plants. By contrast, in Southern California, nitrate particles from motor vehicle exhaust form a larger proportion of the mix.[3]

Where Does Particle Pollution Come From?

Particles are so complex in part because they come from many sources. Particle pollution 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 form primarily coarse particles.[4] Dust storms, construction and demolition, mining operations, agriculture and coal and oil combustion are some of 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, the 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 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 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 U.S. today.

In the early 1990s, dozens of short-term 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 U.S. and found clear evidence of the increased risk of premature death from 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.

Tiny particles lodge deep in the lungs.

Partículas muy pequeñas se alojan en la profundidad de los pulmones.

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]

For example, in a study published in 2003, researchers evaluated a series of autopsied lungs from Mexico City, a city with high particle levels, and compared them to lungs from Vancouver, where there is very little air pollution. The small airways in the Mexico City lungs showed markedly higher levels of fibrous tissue and muscle and microscopic evidence of particle accumulation in the respiratory bronchioles, the small airways in our lungs. The study demonstrates that particle pollution penetrates into and is retained in the walls of small airways. The resulting damage to the lungs was similar to that found in the lungs of cigarette smokers.[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 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.

Short-Term Exposure Can Be Deadly

First and foremost, short-term exposure to particle pollution can kill. Those deaths can occur on the very day that particle levels are high, or within one to two months afterwards. 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. Take a look at 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]
- increased numbers of heart attacks, especially among the elderly and in people with heart conditions;[15]
- inflammation of lung tissue in young, healthy adults;[16]
- increased hospitalization for cardiovascular disease, including strokes;[17,18]
- increased emergency room visits for patients suffering from acute respiratory ailments;[19]
- increased hospitalization for asthma among children; and[20, 21, 22]
- increased severity of asthma attacks in children.[23]

Year-round Exposure

Diabetics join the list of those at risk from particle pollution.

Los diabéticos forman parte de la población de mayor riesgo por contaminación de partículas.

Breathing high levels of particle pollution day in and day out can also be deadly. Chronic exposure to particle pollution can shorten life by one to three years.[24] 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;[25]
- slowed lung function growth in children and teenagers; [26, 27]
- significant damage to the small airways of the lungs;[28]
- increased risk of dying from lung cancer; and[29]
- increased risk of death from cardiovascular disease.[30]

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.[31]

Ozone Pollution

Remember that truck exhaust? As you stare at that dark and gritty smoke, be aware that you can't see all of its dangers. The dirty cloud of that truck's 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 two large studies this year, we learned new information about ozone that confirmed for the first time 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.

New studies show ozone can kill.

Nuevos estudios demuestran que el ozono puede matar.

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 up 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 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 places. These essential raw ingredients for ozone, nitrogen oxides (NO_x) and hydrocarbons, or 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 filling 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 filling up your car 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 length using laboratory animals, clinical subjects and human populations. The results are clear: ozone is dangerous at levels currently experienced in the United States. What we are still learning is just how dangerous ozone can be.

Two important studies released in late 2004 confirm that short-term exposure to ozone can kill. 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.[32] Another study, published the same week, looked at 23 European cities and found similar effects on mortality from ozone exposure.[33]

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.

The effect that ozone has on an individual's health can vary depending on many factors, including: whether they fall into a susceptible population group, what the ozone concentration level is, how rapidly they breathe, and how long they are exposed to it.

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.[34]

Short-term exposure to ozone has also been linked to aggravation of chronic obstructive pulmonary disease (COPD).[35] Repeated inflammation due to exposure to ozone over a period of years can lead to a chronic "stiffening" of the lungs.

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 feeding of oxygen to the blood takes place. The lungs and their alveoli aren't fully grown until they are adults.[36] In addition, the body's defenses that help adults fight off infections are still developing in young bodies.[37] Children have more respiratory infections than adults, which also seems to increase their susceptibility to air pollution.[38]

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.[39]

Air pollution is especially harmful to children.

La contaminación del aire es especialmente dañina para los niños.

The effects of air pollution on children are striking. This year, 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 harm to children, including:

- short-term and long-term decreased lung function rates and lower lung function levels, critical measures of how well the child will breathe throughout his or her lifespan (due primarily 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.[40]

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.[41] The Academy reported many of the health effects cited by the WHO study, but also focused attention 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 the level of diesel exhaust than if they were riding in a car.[42]

Researchers from Yale University published in the *Journal of the American Medical Association* a study of children with asthma, whose mothers had tracked their symptoms on a daily basis. The study found that children with asthma were particularly vulnerable to ozone even at levels below EPA's current 8-hour ozone standard.[43] An accompanying editorial warned, "Air pollution is one of the most under-appreciated contributors to asthma exacerbation."[44]

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.[45]

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, the researchers found that those who grew up in more polluted areas face 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.[46]

Other recent studies have documented that high levels of ozone are linked to increased school absences for children from respiratory illnesses. Researchers looking at children in Reno, Nevada and at a large group of children from Southern California linked high levels of ozone to increased absences for elementary school students.[47]

Real-world evidence shows that reducing pollution can protect children.

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.[48] 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.[49]

La evidencia práctica demuestra que la reducción de contaminación protege a los niños.

There is also real-world evidence that reducing air pollution can help protect children. One of the most striking examples came during the 1996 Olympics in Atlanta, Georgia. 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. Revamping the way the city moved people during the Summer Olympic Games 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.[50]

How to Protect Yourself from Ozone and 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
- Reduce the use of fireplaces and wood-burning stoves

Basically, 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 the sources of pollution, as discussed in this report.

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[1] U.S. EPA. Air Quality Criteria for Particulate Matter, October 2004
[2] U.S. EPA. Air Quality Criteria, 2004, p. 2-2.
[3] U.S. EPA, *The Particle Pollution Report: Current Understanding of Air Quality and Emissions through 2003.* 2004. p. 3.
[4] U.S. EPA. Air Quality Criteria, 2004.
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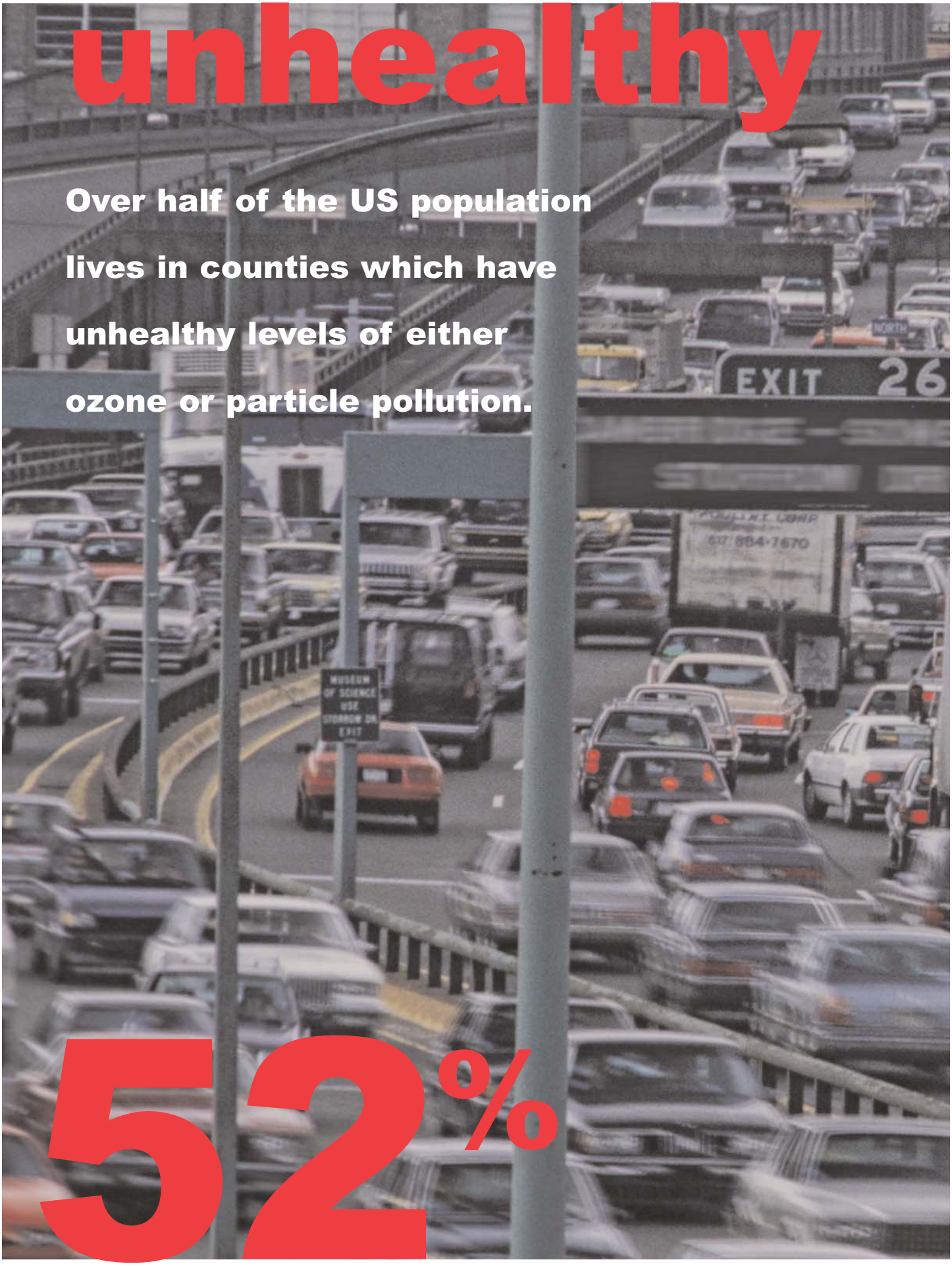

unhealthy

Over half of the US population lives in counties which have unhealthy levels of either ozone or particle pollution.

52%

Protecting the Nation from Air Pollution

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.[1]

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 coming 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.[2] 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 U.S. Environmental Protection Agency (EPA) periodically review and report on the effectiveness of the law, including the costs and benefits of implementation.[3] 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.[4] The White House Office of Management and Budget (OMB) also annually reviews these costs and benefits. In its two most recent reports, OMB found that the benefits of enforcement of the nation's clean air laws from 1992 to 2003 greatly exceeded the costs.[5] Last year, 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."[6]

Today some of the biggest polluters are trying to get away with not having to clean up.

En la actualidad, algunos de los responsables más grandes por la contaminación están tratando de zafarse de su obligación de limpiarla.

The "Endangered" Clean Air Act: Public Health at Risk

Today some of the biggest polluters are trying to get away with not having to

clean up. And the Administration and some in Congress, who should be protecting public health, favor letting polluters get away with it.

- In 2003, EPA attempted to reverse a provision in the Clean Air Act that would have required 17,000 of the nation's oldest, dirtiest power plants, oil refineries and other industrial facilities to meet the same emission standards as newly built ones when they are rehabilitated or modernized.

- In 2004, the Administration prevented EPA from using the authority the Act already gives it that would have made greater progress cleaning up these power plants.

- The Administration and some members of Congress are proposing new laws that would roll back existing requirements of the Act and allow more pollution, lasting over a longer period of time, than the current Act would permit.

To learn about what this means to you, read on.

The Problem with Power Plants

The Lung Association sued EPA to block new rules giving huge loopholes to polluters.

La American Lung Association le ha hecho un juicio a EPA para bloquear nuevas reglas que dan escapatoria a los responsables por la contaminación.

Old coal-fired power plants are among the biggest industrial polluters, especially in the eastern half of United States. The toll of death, disease and environmental destruction caused by coal-fired power plant pollution continues to mount. A new 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.[7]

EPA has the authority to clean up these plants under the Clean Air Act, using tools the Agency has used with other industries. Unfortunately, since 2003 EPA has instead tried to open up huge loopholes for these big polluters. These same polluters are now pushing the Administration and some in Congress to permanently roll back the rules to give them a special break, a break that will cost lives and health.

Rolling Back Power Plant Clean Up

In 2003, EPA took two major steps that cut the legs out from under an important 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 renovated in ways that enable it to put out 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 have begun 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 would allow polluters to significantly increase pollution from existing plants without having to clean up the pollution. These are 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.

- If the plant had been required to install new equipment to reduce emissions within the last decade, EPA's loopholes exempt the plant from having to install any new equipment to reduce pollution for up to 10 years, even if the processing equipment is completely replaced. As technology advances, new methods that could result in even fewer emissions wouldn't even be considered during that decade.

- EPA severely limited the actions states 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, they will just be "routine maintenance" even though the entire plant may cost billions of dollars to replace. By basing this definition on the cost of the plant rather than on how much pollution is created, this new definition effectively exempts plants from having to install or upgrade their emissions reduction equipment at all.

If you live in an area with injurious air quality, and are downwind from an old coal-fired power plant, the changes to NSR mean that plant can continue for decades to pollute the air you and your family breathe. 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 protections.

On December 24, 2003, the DC Circuit Court issued a stay to prevent EPA from taking the final steps to change the NSR, agreeing with the Lung Association and its allies that allowing EPA to move forward before a court re-

The Clean Air Act gives EPA authority to force power plants to clean up.

La Ley de Aire Limpio otorga a EPA la autoridad para obligar a las usinas a limpiar su contaminación.

view would likely cause irreparable harm to public health and are likely to prevail on the merits. The legal review continues.

Enabling the States to Clean Up Power Plants

The Clean Air Act gives EPA further authority to force the plants to clean up by targeting the pollution they send across state lines. On March 10, 2005, EPA used that authority and 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.

Enforcing the Law = Less Pollution

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 direct power plants and other sources to clean up emissions that contribute to ozone and particle pollution. Those 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.

EPA's new rules severely limit the ability of states and local governments to clean up the air.

Las nuevas reglas de EPA limitan severamente la capacidad de los gobiernos estatales y locales para limpiar el aire.

According to EPA, CAIR will help 450 counties in the eastern U.S. 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 these 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 to $100 billion in annual health benefits, which total 25 times the cost of implementation. When the clean up is finished in 2015, EPA estimates that emissions of sulfur dioxide, which are major source 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 61 percent lower than in 2003.[8]

Despite these benefits, EPA could have and should have required power plants to reduce even more pollution and to make those cuts sooner than ten years from now. 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 required the Agency to clean up the

widespread pollution from power plants and other facilities.

What caused EPA to delay and limit its clean up when the public health benefits were 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 an administration bill that corporate polluters favored, S. 131, labeled "Clear Skies" by its sponsors. On March 9th, 2005, a bi-partisan group of Senators defeated that bill in committee. However, the Administration still supports S. 131 and, according to EPA, still "remains committed to working with Congress to pass legislation."[9]

When "Clear Skies" Aren't Clear

The bill that bumped the Clean Air Interstate Rule as the focus of the Administration's plan for power plants is the Clear Skies Initiative (S. 131). Congressional debate on this Administration proposal places the Clean Air Act in its most vulnerable position than at any time since 1990. Although a bipartisan group of Senators stopped the bill in committee in its first attempt at passage, the Administration and the sponsors remain committed to getting the provisions 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 by Sen. Jim Inhofe (R-OK), the Administration plan 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[10]:

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.

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.

- Delaying full pollution reductions 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 these are reasons that the American Lung Association has opposed S. 131. Strict enforcement of the Clean Air Act itself has repeatedly proven to be the way to reduce power plant emissions successfully.

Real Steps to Clean Up Power Plants

If it is fully, properly enforced, the existing Clean Air Act will require major 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. The bill preserves key provisions in the Clean Air Act, 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 the next six years. These components would ensure that power plants become cleaner and local air quality is protected.

How you can help clean up the air

To fight polluters and help clean up dirty power plants, we can use tools already in place under the Clean Air Act. The American Lung Association urges you to contact members of Congress to let them know that you oppose any power plant legislation that lets big polluters off the hook by building loopholes into the protections in the Clean Air Act. Be specific; tell them you want power plants cleaned up now, and the Administration's Clear Skies Initiative is too little, too late.

Recent Clean Air Act Success Stories

EPA took several major steps in the past year toward cleaner air in American communities. All of these actions were taken under the authority of the Clean Air Act. EPA did the following:

- **Began the process to clean up pollutants to meet 1997 health standards.** EPA began the long process toward getting air pollution levels reduced to those set in health-based standards of 1997 by announcing the formal list of counties with unhealthful levels of ozone and particulate pollution. In April, EPA issued the list of 474 counties, called "nonattainment" counties because they had either too much pollution to meet the 8-hour standard for ozone or contributed to another county's ozone problem. In December, EPA followed with a similar list for 224 counties with too much particle pollution. States have three years to develop a plan to reduce emissions sufficiently to meet the 1997 standards.

If it is enforced, the Clean Air Act can force major polluters to clean up.

- **Announced rules to clean up the dirtiest diesel engines.** Diesel exhaust is a noxious brew of waste that adds millions of tons of particles and ozone-causing chemicals into the air each year. In May 2004, EPA announced the final rules to clean up some of the dirtiest remaining diesel engines: diesel engines that power heavy equipment and other non-highway uses.[11] These are engines that power large, familiar equipment, such as bulldozers and excavators used in construction, electric generators and forklifts used by industry, and tractors and irrigation pumps used in agriculture. Surprisingly, together they produce more diesel emissions than do all those trucks and buses on the highways. Particle pollution (measured as $PM_{2.5}$) emissions from heavy equipment vehicles and engines accounted for 64 percent of transportation source emissions. They account for 19 percent of all emissions of nitrogen oxides, a key ingredient in forming ozone.[12] EPA now requires manufacturers to provide cleaner new engines beginning in 2008 and completed by 2014. Fuel for these engines will have 99 percent less sulfur, phased in between 2007 and 2010.

Si se hiciera cumplir, la Ley de Aire Limpio puede forzar a los principales responsables por la contaminación a limpiarla.

- **Provided scientific documentation of the need for stronger particle pollution standards.** The basis of all the protections in the Clean Air Act is the impact of pollutants on human health. The Act requires the EPA to review the available research and determine if the current air pollution standards protect the public health with "an adequate margin of safety." In October 2004, EPA published its most recent formal review of the current knowledge of the health effects of particle pollution in the *Particulate Matter Criteria Document.* Since 1997, EPA has sponsored millions of dollars in research into the health effects of these tiny particles, gaining much new insight into the mechanisms that wreak havoc on the body. Now that this review is complete, EPA begins the process of determining what the new standard should be in order to provide this legally guaranteed protection.

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[8] U. S. EPA. Clean Air Interstate Rule. Basic information. http://www.epa.gov/cair/basic.html. Downloaded March 11, 2005.
[9] U.S. EPA. Clean Air Interstate Rule. Home page. http://www.epa.gov/cair/. Downloaded March 11, 2005.
[10] U. S. EPA. "Discussion of Multi-Pollutant Strategy," Meeting with the Edison Electric Institute, September 18, 2001, "Comparison of Requirements Under Business-as-usual and the Straw Proposal," page 10. http://www.cleartheair.org/currentstatus.pdf. EPA. December 4, 2001, Supplemental presentation to Edison Electric Institute on mercury. http://www.cleartheair/epamercury.pdf.
[11] 40 CFR 9, 69, 80, 86, 89, 94, 1039, 1048, 1051, 1065 and 1068.
[12] American Lung Association and Environmental Defense. *Closing the Diesel Divide: Protecting Public Health from Diesel Air Pollution*. 2003.

Dirty, Dangerous Diesel

Diesel engines are everywhere you look. Trucks, buses, tractors, bulldozers, generators, even ships and locomotives-diesel powers much of the work we depend on. Commonplace as they are, diesel engines remain one of the dirtiest ways to power anything. Diesel emissions are a major source of particle pollution and the gases that make ozone.[1] Unlike the family car, diesel engines have not had to get significantly cleaner. And unlike that family car, they often last for decades.

Historic changes are already in the pipeline that will produce new, cleaner, diesel engines. The dilemma of diesels is that the old, dirty ones still in use will be with us—spewing pollution and threatening lives—for years to come.

- New heavy-duty trucks and buses will be required to add control devices that will make their engines dramatically cleaner beginning in 2007. These engines must produce 95 percent less pollution by 2010. Diesel fuels for these trucks and buses will be cleaned up beginning in 2006 by 97 percent.[2]

- Heavy equipment like tractors and bulldozers, generators, and pumps will be cleaner, too, beginning with the smallest engines in 2008 and progressing to the largest engines in 2015. Fuels for these engines must also be cleaner, beginning in 2007. These fuels have long been much dirtier than that used in trucks and buses[3]

Some in industry are trying to get around having to make these changes, by pushing for weaker requirements or delaying the dates even longer. The American Lung Association opposes any delays in these deadlines or changes that allow dirty diesels to keep polluting.

Still, many sources of toxic diesel pollution remain untouched. While the fuels for diesel locomotives and marine vehicles are going to be 99 percent cleaner, their engines are still polluting with minimal controls. In May, 2004, EPA began taking comments on possible requirements for cleaning up these engines by some 90 percent, similar to the requirements for other diesel engines.[4] To date, EPA has not issued rules enabling the work to begin to clean up these sources.

But the largest remaining diesel sources are the diesel engines in place today. Those trucks, buses, bulldozers, tractors, and generators will be around for a long, long time. Heavy duty trucks, for instance, last on average over 25 years[5] and will continue to pollute with every mile. Buses, tractors, and other heavy equipment, not to mention locomotives and marine vessels, also have long lifetimes.

Governments can take many steps now to reduce the pollution from existing

diesel exhaust:

- Replace existing mufflers with cleaner technology, including filters and catalysts, that can clean up existing vehicles.
- Require ultra low sulfur diesel and cleaner alternative fuels.
- Install truck stop electrification systems to provide long-haul truckers an alternative to running their engines all night.
- Require cleaner trucks and equipment in contract specification for public works projects.
- Eliminate exhaust from entering the cabin of school buses and transit buses by using closed ventilation systems.
- Fund programs to help equipment owners, including cities and states, replace or rebuild their dirty engines.
- Adopt anti-idling ordinances for school buses, heavy duty trucks, and other diesel vehicles.[6]

It will take decades for the existing fleet to be replaced with cleaner vehicles. Now is the time to clean up these dinosaurs. We cannot afford to wait.

---

[1] U.S. EPA. Regulatory Announcement: Heavy Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements. Federal Register 2001: 66:502.
[2] U.S. EPA Regulatory Announcement.
[3] 40 CFR 9, 69, 80, 86, 89, 94, 1039, 1048, 1051, 1065,and 1068
[4] U.S. EPA. Regulatory Announcement: Clean Diesel Program for Locomotives and Marine Engines. May 2004.
[5] Clean Air Task Force. Diesel and Health in America: The Lingering Threat. 2005. Citation is based on analysis from the U.S. Department of Energy.
[6] Clean Air Task Force, 2005.

Conclusion

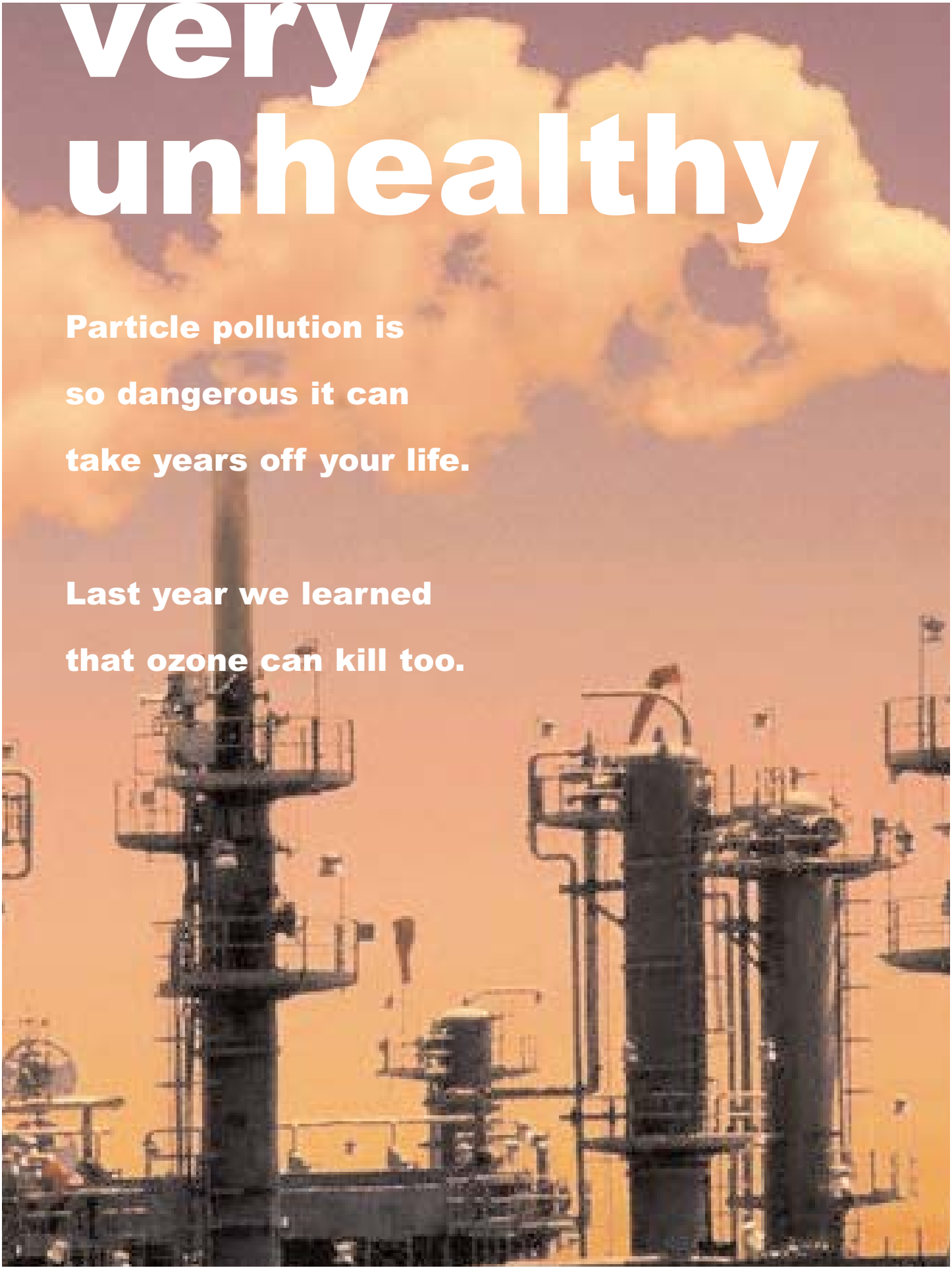
In its 35-year history, the Clean Air Act has proven its worth many times over. Thanks to the protections written into that law, we have reduced the burden of air pollution on those people most at risk. The air is cleaner than it was when the Act was first written in 1970. However, cleaner is not clean enough. Documented in the *American Lung Association State of the Air 2005* report is strong evidence that dangerously unhealthful air is still an unfortunate reality for 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 the political leaders in your city, county and state know you support steps to clean up the air. Many communities have begun planning to reach national standards for ozone and particle pollution. Let your local and state officials know you support strong measures to clean up the biggest polluters, especially dirty diesel and coal-fired power plants.

Finally, the Clean Air Act itself needs your help. Let your members of Congress know that the Clean Air Act works and they should not pass bills that would weaken its protections or allow polluters to delay cleaning up their problems. Urge them to oppose the Administration's power plant bill (S.131), which would allow the oldest, dirtiest plants to pollute more and longer than the existing law would. Log on to **www.lungusa.org** to send them that message.

Over 152 million people live in areas of the United States where the air quality puts their health at risk. These are our children, our parents, our families, our neighbors and our friends. Too many people remain at risk and there is 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.


very
unhealthy
Particle pollution is
so dangerous it can
take years off your life.
Last year we learned
that ozone can kill too.

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Notes for all state data tables

(1) **Total Population** represents the at-risk populations in counties with ozone or $PM_{2.5}$ pollution monitors; it does not represent the entire states' sensitive populations.
(2) Those **Under 18** or **65 and Over** are vulnerable to ozone and particle pollution and are therefore included.
(3) **Pediatric Asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2003 based on national rates (NHIS) applied to county population estimates (US Census).
(4) **Adult Asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2003 based on state rates (BRFSS) applied to county population estimates (US Census).
(5) **Chronic Bronchitis** estimates are for adults 18 and over who had been diagnosed with this disease within 2003 based on national rates (NHIS) applied to county population estimates (US Census).
(6) **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).
(7) **Cardiovascular Disease (CV)** estimates are based on American Heart Association estimates of cardiovascular disease applied to county populations.
(8) **Diabetes** 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).
(9) Adding across rows does not produce valid estimates, i.e. summing pediatric and adult asthma and/or emphysema and chronic bronchitis.
(10) Changes to county grades and monitors from those found in the 2004 report are noted at the end of each state table.

ALABAMA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
BALDWIN	151,831	35,486	24,369	3,020	8,713	4,856	1,992	42,431	8,555
BARBOUR	28,816	7,100	3,714	604	1,629	875	325	7,263	1,447
CLAY	14,182	3,252	2,368	277	820	459	192	4,052	818
COLBERT	54,531	12,509	8,563	1,065	3,150	1,760	719	15,379	3,103
DE KALB	66,469	16,180	9,202	1,377	3,755	2,053	790	17,391	3,474
ELMORE	70,691	17,444	7,708	1,484	3,966	2,106	730	16,938	3,346
ESCAMBIA	38,179	8,954	5,319	762	2,197	1,192	458	10,076	2,015
ETOWAH	103,035	24,068	16,355	2,048	5,931	3,299	1,351	28,833	5,812
HOUSTON	91,409	23,018	12,719	1,959	5,105	2,807	1,092	23,893	4,788
JEFFERSON	658,141	160,713	88,472	13,677	37,115	20,262	7,719	170,550	34,100
LAWRENCE	34,594	8,519	4,273	725	1,943	1,059	393	8,819	1,760
LIMESTONE	68,245	16,458	7,826	1,401	3,837	2,069	736	16,888	3,345
MADISON	289,662	71,888	33,461	6,118	16,248	8,701	3,110	70,847	14,092
MOBILE	399,747	107,541	48,464	9,152	21,976	11,805	4,369	97,866	19,532
MONTGOMERY	221,980	57,176	26,390	4,866	12,435	6,570	2,364	53,498	10,646
MORGAN	112,610	27,687	14,336	2,356	6,330	3,459	1,300	29,014	5,792
RUSSELL	48,986	12,671	6,633	1,078	2,713	1,478	566	12,463	2,491
SHELBY	159,445	41,166	13,792	3,503	8,734	4,634	1,509	36,349	7,143
SUMTER	14,182	3,901	1,998	332	789	418	163	3,536	709
TALLADEGA	79,928	19,641	10,548	1,671	4,531	2,466	941	20,803	4,166
TUSCALOOSA	166,446	38,422	18,726	3,270	9,839	5,025	1,726	39,918	7,905
WALKER	70,181	16,163	10,737	1,375	4,048	2,249	907	19,537	3,931
TOTALS	**2,943,290**	**729,957**	**375,973**	**62,120**	**165,804**	**89,602**	**33,452**	**746,344**	**148,970**

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

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HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BALDWIN	3	0	0	1.0	C
BARBOUR	DNC	DNC	DNC	DNC	DNC
CLAY	6	0	0	2.0	C
COLBERT	*	*	*	*	*
DE KALB	DNC	DNC	DNC	DNC	DNC
ELMORE	3	0	0	1.0	C
ESCAMBIA	DNC	DNC	DNC	DNC	DNC
ETOWAH	*	*	*	*	*
HOUSTON	DNC	DNC	DNC	DNC	DNC
JEFFERSON	21	2	0	8.0	F
LAWRENCE	2	0	0	0.7	B
LIMESTONE	*	*	*	*	*
MADISON	2	0	0	0.7	B
MOBILE	5	0	0	1.7	C
MONTGOMERY	4	0	0	1.3	C
MORGAN	6	0	0	2.0	C
RUSSELL	*	*	*	*	*
SHELBY	21	1	0	7.5	F
SUMTER	2	0	0	0.7	B
TALLADEGA	DNC	DNC	DNC	DNC	DNC
TUSCALOOSA	3	0	0	1.0	C
WALKER	*	*	*	*	*

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BALDWIN	0	0	0	0.0	A	11.0	PASS
BARBOUR	*	*	*	*	*	*	INC
CLAY	0	0	0	0.0	A	13.1	PASS
COLBERT	0	0	0	0.0	A	12.8	PASS
DE KALB	0	0	0	0.0	A	*	INC
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	*	INC
HOUSTON	1	0	0	0.3	B	*	INC
JEFFERSON	45	1	0	15.5	F	17.3	FAIL
LAWRENCE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LIMESTONE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MADISON	1	0	0	0.3	B	14.1	PASS
MOBILE	1	0	0	0.3	B	12.6	PASS
MONTGOMERY	2	0	0	0.7	B	14.2	PASS
MORGAN	0	0	0	0.0	A	13.7	PASS
RUSSELL	2	0	0	0.7	B	15.3	FAIL
SHELBY	1	0	0	0.3	B	*	INC
SUMTER	1	0	0	0.3	B	12.0	PASS
TALLADEGA	2	0	0	0.7	B	14.7	PASS
TUSCALOOSA	0	0	0	0.0	A	*	INC
WALKER	*	*	*	*	*	*	INC

Ozone
- Ozone data are now collected in Limestone County and Russell County, but insufficient data exist to grade them.
- Baldwin County, Mobile County, Montgomery County, and Morgan County improved their grades from an F to a C.
- Lawrence County's grade improved from a C to a B.
- Madison County's grade improved from a D to a B.
- Tuscaloosa County now has sufficient data to receive a grade.

24-Hour Particle Pollution
- Monitors are now collecting data in Barbour County, but haven't collected enough to grade.
- Three counties improved their grades from a C to an A: Clay, DeKalb, Etowah.
- Four counties improved their grades from a B to an A: Colbert, Escambia, Morgan, Tuscaloosa.
- Five counties improved their grades from a C to a B: Madison, Mobile, Montgomery, Russell, Talladega.

Annual Particle Pollution
- Grades in Montgomery County and Talladega County 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.

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	270,951	77,345	16,323	6,582	17,355	7,438	2,198	55,749	10,901
FAIRBANKS NORTH STAR	85,978	25,298	4,329	2,153	5,398	2,278	624	16,430	3,186
JUNEAU	31,187	8,204	2,176	698	2,082	911	291	7,099	1,409
KETCHIKAN GATEWAY	13,320	3,583	1,155	305	891	393	135	3,164	632
MATANUSKA-SUSITNA	68,337	19,983	4,315	1,701	4,362	1,886	579	14,329	2,837
YUKON-KOYUKUK	6,314	2,069	500	176	388	169	57	1,337	268
TOTALS	**476,087**	**136,482**	**28,798**	**11,615**	**30,476**	**13,075**	**3,884**	**98,108**	**19,233**

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

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HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ANCHORAGE	DNC	DNC	DNC	DNC	DNC
FAIRBANKS	DNC	DNC	DNC	DNC	DNC
JUNEAU	DNC	DNC	DNC	DNC	DNC
KETCHIKAN GATEWAY	DNC	DNC	DNC	DNC	DNC
MATANUSKA-SUSITNA	DNC	DNC	DNC	DNC	DNC
YUKON-KOYUKUK	0	0	0	0.0	A

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ANCHORAGE	0	0	0	0.0	A	6.0	PASS
FAIRBANKS	8	1	0	3.2	D	*	INC
JUNEAU	0	0	0	0.0	A	*	INC
KETCHIKAN GATEWAY	*	*	*	*	*	*	INC
MATANUSKA-SUSITNA	0	0	0	0.0	A	6.4	PASS
YUKON-KOYUKUK	1	0	0	0.3	B	*	INC

Ozone
- No changes occurred in ozone grades or monitors.

24-Hour Particle Pollution
- Fairbanks North Star County improved its grade from an F to a D.

Annual Particle Pollution
- There were no changes in grades

(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: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
COCHISE	122,161	32,516	19,016	2,767	7,581	3,763	1,559	32,908	6,682
COCONINO	121,301	34,437	8,957	2,931	7,342	3,330	1,016	25,134	4,923
GILA	51,448	12,817	10,691	1,091	3,263	1,708	805	16,060	3,299
MARICOPA	3,389,260	945,032	380,638	80,422	204,461	96,191	33,704	775,477	152,773
NAVAJO	104,280	35,263	11,133	3,001	5,865	2,763	1,002	22,498	4,505
PIMA	892,798	222,634	126,931	18,946	56,484	27,300	10,574	230,873	46,233
PINAL	204,148	52,208	30,718	4,443	12,834	6,218	2,466	53,213	10,663
SANTA CRUZ	40,267	13,301	4,508	1,132	2,263	1,097	411	9,118	1,832
YAVAPAI	184,433	38,507	40,347	3,277	12,334	6,420	3,012	60,220	12,340
YUMA	171,134	51,641	29,167	4,395	10,234	4,976	2,128	44,002	8,897
TOTALS	**5,281,230**	**1,438,356**	**662,106**	**122,405**	**322,661**	**153,766**	**56,677**	**1,269,503**	**252,147**

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

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HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
COCHISE	0	0	0	0.0	A
COCONINO	0	0	0	0.0	A
GILA	*	*	*	*	*
MARICOPA	36	1	0	12.5	F
NAVAJO	*	*	*	*	*
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 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
COCHISE	0	0	0	0.0	A	*	INC
COCONINO	0	0	0	0.0	A	*	INC
GILA	0	0	0	0.0	A	*	INC
MARICOPA	9	1	0	3.5	F	10.7	PASS
NAVAJO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PIMA	0	0	0	0.0	A	6.8	PASS
PINAL	0	0	0	0.0	A	8.2	PASS
SANTA CRUZ	0	0	0	0.0	A	11.7	PASS
YAVAPAI	DNC	DNC	DNC	DNC	DNC	DNC	DNC
YUMA	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Pinal County now has sufficient data to receive a grade.

24-Hour Particle Pollution
- Cochise County and Pinal County improved their grades from a B to an A.

Annual Particle Pollution
- There were no changes in grades.

(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: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ARKANSAS	20,158	4,994	3,217	425	1,128	640	267	5,653	1,142
ASHLEY	23,583	6,078	3,283	517	1,299	724	285	6,197	1,247
CRAIGHEAD	84,626	20,527	9,854	1,747	4,645	2,532	889	20,409	4,037
CRITTENDEN	51,155	15,779	4,998	1,343	2,615	1,398	481	11,177	2,213
FAULKNER	92,060	22,876	8,856	1,947	4,935	2,654	850	20,290	3,993
GARLAND	91,188	19,554	18,875	1,664	5,220	3,093	1,405	28,501	5,802
JEFFERSON	82,889	21,262	10,613	1,809	4,492	2,496	936	20,762	4,159
MARION	16,283	3,339	3,393	284	958	570	263	5,316	1,089
MILLER	41,892	10,941	5,534	931	2,266	1,251	472	10,470	2,087
MISSISSIPPI	49,041	14,555	6,068	1,239	2,528	1,401	530	11,722	2,347
MONTGOMERY	9,120	2,045	1,751	174	522	305	136	2,786	567
NEWTON	8,542	1,920	1,313	163	495	281	115	2,462	500
PHILLIPS	24,621	7,807	3,459	664	1,214	700	285	6,056	1,227
POLK	20,224	5,031	3,471	428	1,113	644	276	5,754	1,166
POPE	55,185	13,592	7,133	1,157	3,006	1,672	620	13,772	2,758
PULASKI	364,567	92,834	42,330	7,900	20,350	10,912	3,942	89,680	17,811
SEBASTIAN	117,252	30,642	14,903	2,608	6,423	3,513	1,320	29,388	5,863
UNION	44,829	11,257	6,992	958	2,463	1,401	573	12,204	2,464
WASHINGTON	169,684	42,848	16,284	3,646	9,154	4,872	1,565	37,509	7,348
WHITE	69,981	16,811	9,589	1,431	3,805	2,144	809	17,799	3,569
TOTALS	**1,436,880**	**364,692**	**181,916**	**31,035**	**78,631**	**43,203**	**16,019**	**357,907**	**71,389**

(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 2001-2003[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	17	3	0	7.2	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	DNC	DNC	DNC	DNC	DNC
POPE	DNC	DNC	DNC	DNC	DNC
PULASKI	14	0	0	4.7	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 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ARKANSAS	0	0	0	0.0	A	11.9	PASS
ASHLEY	1	0	0	0.3	B	11.8	PASS
CRAIGHEAD	0	0	0	0.0	A	12.0	PASS
CRITTENDEN	1	0	0	0.3	B	12.7	PASS
FAULKNER	0	0	0	0.0	A	12.6	PASS
GARLAND	0	0	0	0.0	A	*	INC
JEFFERSON	0	0	0	0.0	A	*	INC
MARION	0	0	0	0.0	A	*	INC
MILLER	1	0	0	0.3	B	*	INC
MISSISSIPPI	0	0	0	0.0	A	12.0	PASS
MONTGOMERY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
NEWTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PHILLIPS	0	0	0	0.0	A	12.1	PASS
POLK	0	0	0	0.0	A	11.0	PASS
POPE	0	0	0	0.0	A	12.1	PASS
PULASKI	4	0	0	1.3	C	14.1	PASS
SEBASTIAN	0	0	0	0.0	A	12.3	PASS
UNION	1	0	0	0.3	B	*	INC
WASHINGTON	0	0	0	0.0	A	*	INC
WHITE	0	0	0	0.0	A	11.9	PASS

Ozone
- No changes occurred in ozone grades or monitors.

24-Hour Particle Pollution
- Crittenden County's grade dropped from an A to a B.

Annual Particle Pollution
- There were no changes in grades.

(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: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ALAMEDA	1,461,030	358,508	149,855	30,509	92,332	43,476	14,792	347,531	68,430
AMADOR	37,273	6,854	6,647	583	2,587	1,287	542	11,399	2,312
BUTTE	211,010	47,294	31,583	4,025	13,964	6,660	2,588	56,236	11,282
CALAVERAS	44,533	9,157	7,696	779	3,032	1,525	655	13,713	2,794
COLUSA	19,678	5,927	2,153	504	1,168	546	194	4,414	879
CONTRA COSTA	1,001,136	257,946	112,398	21,951	62,716	29,996	10,843	246,889	49,166
EL DORADO	168,822	39,994	20,146	3,403	10,966	5,307	1,990	44,575	8,953
FRESNO	850,325	259,249	82,665	22,062	49,895	22,966	7,676	180,181	35,477
GLENN	27,256	7,832	3,453	667	1,649	786	296	6,540	1,310
HUMBOLDT	127,915	27,789	15,989	2,365	8,523	4,049	1,486	33,433	6,683
IMPERIAL	149,232	44,809	15,407	3,813	8,802	4,064	1,380	32,041	6,322
INYO	18,326	4,057	3,382	345	1,223	618	273	5,623	1,149
KERN	713,087	216,213	65,323	18,400	41,841	19,203	6,268	149,137	29,278
KINGS	138,564	38,461	10,142	3,273	8,350	3,709	1,052	27,004	5,182
LAKE	63,369	14,434	10,902	1,228	4,175	2,087	892	18,659	3,790
LOS ANGELES	9,871,506	2,695,948	974,944	229,425	600,872	279,077	92,796	2,194,880	430,657
MADERA	133,463	37,753	14,365	3,213	8,080	3,763	1,304	30,085	5,947
MARIN	246,073	49,420	34,455	4,206	16,668	8,290	3,290	71,991	14,522

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALAMEDA	12	1	0	4.5	F
AMADOR	11	0	0	3.7	F
BUTTE	27	0	0	9.0	F
CALAVERAS	34	1	0	11.8	F
COLUSA	3	0	0	1.0	C
CONTRA COSTA	8	0	0	2.7	D
EL DORADO	86	17	1	37.8	F
FRESNO	223	59	3	105.8	F
GLENN	0	0	0	0.0	A
HUMBOLDT	DNC	DNC	DNC	DNC	DNC
IMPERIAL	36	3	0	13.5	F
INYO	4	0	0	1.3	C
KERN	225	66	1	108.7	F
KINGS	58	2	0	20.3	F
LAKE	0	0	0	0.0	A
LOS ANGELES	108	47	18	71.5	F
MADERA	44	1	0	15.2	F
MARIN	0	0	0	0.0	A

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALAMEDA	12	1	0	4.5	F	11.6	PASS
AMADOR	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BUTTE	5	1	0	2.2	D	12.9	PASS
CALAVERAS	0	0	0	0.0	A	8.9	PASS
COLUSA	2	0	0	0.7	B	9.7	PASS
CONTRA COSTA	21	4	0	9.0	F	10.9	PASS
EL DORADO	0	0	0	0.0	A	7.6	PASS
FRESNO	112	27	1	51.5	F	19.7	FAIL
GLENN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HUMBOLDT	0	0	0	0.0	A	8.5	PASS
IMPERIAL	12	0	0	4.0	F	9.1	PASS
INYO	5	2	0	2.7	D	6.2	PASS
KERN	88	40	1	50.0	F	21.8	FAIL
KINGS	24	8	0	12.0	F	19.0	FAIL
LAKE	0	0	0	0.0	A	5.0	PASS
LOS ANGELES	120	19	0	49.5	F	23.6	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				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
MARIPOSA	17,803	3,471	3,056	295	1,229	611	258	5,430	1,105
MENDOCINO	88,358	20,979	12,067	1,785	5,762	2,811	1,107	24,119	4,873
MERCED	231,574	75,202	20,841	6,400	13,191	6,022	1,959	46,518	9,142
MODOC	9,417	2,068	1,726	176	629	318	140	2,879	589
MONO	12,988	2,949	1,005	251	846	394	125	3,073	604
MONTEREY	414,449	116,283	40,861	9,896	25,091	11,587	3,855	90,853	17,871
NAPA	131,607	30,565	19,011	2,601	8,566	4,157	1,628	35,472	7,123
NEVADA	96,099	19,892	16,252	1,693	6,534	3,282	1,402	29,428	5,998
ORANGE	2,957,766	781,268	303,000	66,486	182,347	85,437	29,014	680,424	133,879
PLACER	292,235	69,061	39,415	5,877	18,853	9,096	3,461	76,601	15,308
PLUMAS	21,148	4,195	3,859	357	1,459	741	327	6,762	1,385
RIVERSIDE	1,782,650	508,894	211,764	43,307	107,143	50,216	17,942	406,693	80,444
SACRAMENTO	1,330,711	357,836	143,835	30,452	81,731	38,366	13,314	308,304	60,822
SAN BENITO	56,300	17,428	4,502	1,483	3,266	1,503	477	11,572	2,269
SAN BERNARDINO	1,859,678	572,365	154,222	48,708	108,246	49,429	15,615	378,603	74,076
SAN DIEGO	2,930,886	748,944	321,719	63,735	183,383	85,592	29,435	682,801	134,659
SAN FRANCISCO	751,682	109,388	107,791	9,309	53,045	25,570	9,292	211,258	41,544
SAN JOAQUIN	632,760	186,663	62,734	15,885	37,611	17,396	5,858	137,075	27,028

(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
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(510) 638-5864 www.californialung.org

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
MARIPOSA	62	0	0	20.7	F
MENDOCINO	0	0	0	0.0	A
MERCED	130	8	1	48.0	F
MODOC	DNC	DNC	DNC	DNC	DNC
MONO	*	*	*	*	*
MONTEREY	0	0	0	0.0	A
NAPA	0	0	0	0.0	A
NEVADA	69	4	0	25.0	F
ORANGE	14	1	0	5.2	F
PLACER	53	6	0	20.7	F
PLUMAS	0	0	0	0.0	A
RIVERSIDE	152	77	12	97.2	F
SACRAMENTO	68	13	0	29.2	F
SAN BENITO	9	0	0	3.0	D
SAN BERNARDINO	143	89	39	118.2	F
SAN DIEGO	35	1	0	12.2	F
SAN FRANCISCO	0	0	0	0.0	A
SAN JOAQUIN	7	0	0	2.3	D

PARTICLE POLLUTION DAYS 2001-2003[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	8.4	PASS
MERCED	19	4	0	8.3	F	17.0	FAIL
MODOC	0	0	0	0.0	A	*	INC
MONO	*	*	*	*	*	*	INC
MONTEREY	0	0	0	0.0	A	*	INC
NAPA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
NEVADA	0	1	0	0.5	B	8.1	PASS
ORANGE	60	5	0	22.5	F	19.3	FAIL
PLACER	4	0	0	1.3	C	11.7	PASS
PLUMAS	10	0	0	3.3	F	*	INC
RIVERSIDE	189	36	0	81.0	F	27.8	FAIL
SACRAMENTO	45	9	0	19.5	F	12.5	PASS
SAN BENITO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SAN BERNARDINO	53	13	0	24.2	F	25.2	FAIL
SAN DIEGO	31	0	0	10.3	F	15.9	FAIL
SAN FRANCISCO	21	6	0	10.0	F	11.6	PASS
SAN JOAQUIN	17	2	0	6.7	F	14.7	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				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
SAN LUIS OBISPO	253,118	51,037	36,214	4,343	17,236	8,209	3,122	68,744	13,778
SAN MATEO	697,456	160,162	88,639	13,630	45,111	21,845	8,146	182,873	36,420
SANTA BARBARA	403,134	98,119	51,602	8,350	25,872	12,136	4,416	99,163	19,717
SANTA CLARA	1,678,421	414,333	168,842	35,260	105,489	49,606	16,678	393,871	77,434
SANTA CRUZ	251,584	57,668	24,936	4,908	16,467	7,705	2,622	61,328	12,203
SHASTA	175,650	41,689	26,420	3,548	11,425	5,580	2,247	48,292	9,748
SISKIYOU	44,626	9,565	8,170	814	3,019	1,522	671	13,836	2,831
SOLANO	412,336	113,269	41,181	9,639	25,218	11,825	4,053	94,545	18,701
SONOMA	466,725	109,766	57,985	9,341	30,312	14,586	5,457	121,995	24,439
STANISLAUS	492,233	145,649	49,022	12,395	29,206	13,535	4,575	106,966	21,082
SUTTER	84,703	22,995	10,387	1,957	5,218	2,474	909	20,390	4,060
TEHAMA	58,582	14,777	9,033	1,258	3,727	1,817	737	15,745	3,174
TULARE	390,791	126,408	36,887	10,757	22,353	10,274	3,433	80,469	15,870
TUOLUMNE	56,755	10,568	10,346	899	3,947	1,966	840	17,578	3,567
VENTURA	791,130	215,213	82,960	18,315	48,581	22,904	8,006	184,869	36,655
YOLO	183,042	44,065	17,034	3,750	11,812	5,281	1,645	39,671	7,802
TOTALS	**35,340,995**	**9,384,379**	**3,748,823**	**798,611**	**2,180,768**	**1,021,202**	**351,083**	**8,162,531**	**1,610,333**

(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 2001-2003[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	1	0	4.5	F
SANTA CLARA	15	0	0	5.0	F
SANTA CRUZ	0	0	0	0.0	A
SHASTA	6	0	0	2.0	C
SISKIYOU	0	0	0	0.0	A
SOLANO	0	0	0	0.0	A
SONOMA	0	0	0	0.0	A
STANISLAUS	53	1	0	18.2	F
SUTTER	20	0	0	6.7	F
TEHAMA	12	0	0	4.0	F
TULARE	228	28	0	90.0	F
TUOLUMNE	37	0	0	12.3	F
VENTURA	64	6	0	24.3	F
YOLO	7	0	0	2.3	D

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
SAN LUIS OBISPO	2	0	0	0.7	B	9.2	PASS
SAN MATEO	5	1	0	2.2	D	10.6	PASS
SANTA BARBARA	1	0	0	0.3	B	9.5	PASS
SANTA CLARA	26	0	0	8.7	F	11.1	PASS
SANTA CRUZ	0	0	0	0.0	A	8.4	PASS
SHASTA	1	0	0	0.3	B	9.1	PASS
SISKIYOU	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SOLANO	5	3	0	3.2	D	11.8	PASS
SONOMA	6	1	0	2.5	D	10.0	PASS
STANISLAUS	21	7	0	10.5	F	16.2	FAIL
SUTTER	4	0	0	1.3	C	11.5	PASS
TEHAMA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TULARE	33	10	0	16.0	F	21.3	FAIL
TUOLUMNE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
VENTURA	7	1	0	2.8	D	14.5	PASS
YOLO	1	1	0	0.8	B	9.8	PASS

Ozone
- Orange and Santa Clara Counties grades dropped from a D to an F.
- Shasta County's grade dropped from a B to a C.
- San Luis Obispo County's grade dropped from an A to B.

24-Hour Particle Pollution
- Butte, Inyo, Solano, and Ventura County improved their grades from an F to a D.
- San Luis Obispo and Yolo Counties improved their grades from a C to a B.
- Calaveras County and Lake County improved their grade from a B to an A.
- Mendocino County's grade dropped from an A to a B.

Annual Particle Pollution
- Imperial County and San Joaquin County's grades 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	380,273	104,268	29,981	8,873	22,661	10,402	3,103	78,030	15,024
ARAPAHOE	516,060	136,224	46,396	11,593	31,116	14,928	4,935	117,856	23,191
ARCHULETA	11,313	2,579	1,396	219	721	363	139	3,078	621
BOULDER	278,231	62,097	22,219	5,284	17,889	8,274	2,518	62,463	12,208
DELTA	29,409	6,726	5,770	572	1,847	979	440	8,962	1,826
DENVER	557,478	132,465	60,771	11,273	34,282	16,512	5,548	130,961	25,552
DOUGLAS	223,471	67,543	9,462	5,748	12,706	5,825	1,540	41,899	8,016
ELBERT	22,254	6,091	1,434	518	1,341	637	199	4,925	974
EL PASO	550,478	151,915	48,338	12,928	32,868	15,491	5,015	120,516	23,667
GUNNISON	14,046	2,491	1,046	212	972	431	121	3,113	604
JEFFERSON	528,563	129,211	54,449	10,996	32,759	16,005	5,592	129,838	25,768
LA PLATA	46,229	9,677	4,625	824	3,057	1,447	487	11,440	2,275
LARIMER	266,610	61,393	25,696	5,225	17,051	7,974	2,598	62,027	12,205
MESA	124,676	29,701	19,131	2,528	7,810	3,921	1,571	33,767	6,793
MONTEZUMA	24,335	6,357	3,452	541	1,477	751	302	6,507	1,315
PUEBLO	148,751	37,496	22,019	3,191	9,122	4,545	1,788	38,744	7,761
ROUTT	20,788	4,393	1,098	374	1,348	629	179	4,681	909
SAN MIGUEL	7,154	1,227	241	104	480	221	55	1,571	298
WELD	211,272	58,452	17,416	4,974	12,751	5,823	1,794	43,991	8,591
TOTALS	**3,961,391**	**1,010,306**	**374,940**	**85,977**	**242,258**	**115,158**	**37,924**	**904,369**	**177,598**

(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
1600 Race Street
Denver, CO 80206-1198
(303) 388-4327 www.lungcolorado.org

HIGH OZONE DAYS 2001-2003[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	9	2	0	4.0	F
ELBERT	DNC	DNC	DNC	DNC	DNC
EL PASO	0	0	0	0.0	A
GUNNISON	DNC	DNC	DNC	DNC	DNC
JEFFERSON	25	0	0	8.3	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 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS	4	0	0	1.3	C	10.4	PASS
ARAPAHOE	2	0	0	0.7	B	8.9	PASS
ARCHULETA	0	0	0	0.0	A	*	INC
BOULDER	1	0	0	0.3	B	9.4	PASS
DELTA	0	0	0	0.0	A	8.0	PASS
DENVER	6	2	0	3.0	D	10.8	PASS
DOUGLAS	*	*	*	*	*	*	INC
ELBERT	0	0	0	0.0	A	4.5	PASS
EL PASO	0	0	0	0.0	A	7.8	PASS
GUNNISON	0	0	0	0.0	A	6.9	PASS
JEFFERSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LA PLATA	0	0	0	0.0	A	5.7	PASS
LARIMER	0	0	0	0.0	A	7.9	PASS
MESA	0	0	0	0.0	A	7.8	PASS
MONTEZUMA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PUEBLO	0	0	0	0.0	A	8.0	PASS
ROUTT	0	0	0	0.0	A	7.4	PASS
SAN MIGUEL	1	0	0	0.3	B	5.6	PASS
WELD	3	0	0	1.0	C	9.6	PASS

Ozone
- Douglas County's grade dropped from a C to an F.
- Larimer County's grade dropped from a D to an F.
- Arapahoe County's grade dropped from a C to a D.
- Boulder County's grade dropped from a B from a C.
- Denver County's grade dropped from an A to a C.
- Weld County's grade dropped from an A to a B.

24-Hour Particle Pollution
- Arapahoe County's grade dropped from an A to a B.

Annual Particle Pollution
- There were no changes in grades

(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				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
FAIRFIELD	899,152	227,375	117,301	19,350	55,845	27,531	10,525	233,016	46,603
HARTFORD	871,457	208,294	124,861	17,726	55,220	27,318	10,718	233,677	46,873
LITCHFIELD	187,801	43,450	26,593	3,698	11,913	6,027	2,392	52,137	10,486
MIDDLESEX	161,439	36,091	21,962	3,071	10,454	5,148	1,975	43,638	8,739
NEW HAVEN	841,873	200,593	117,092	17,070	53,842	26,172	10,064	221,171	44,262
NEW LONDON	263,992	61,861	34,412	5,264	17,078	8,206	3,077	68,591	13,693
TOLLAND	145,039	31,116	15,075	2,648	10,160	4,483	1,511	35,171	7,020
TOTALS	**3,370,753**	**808,780**	**457,296**	**68,827**	**214,512**	**104,885**	**40,262**	**887,401**	**177,676**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
FAIRFIELD	46	14	3	24.3	F
HARTFORD	17	1	1	6.8	F
LITCHFIELD	18	2	0	7.0	F
MIDDLESEX	27	7	1	13.2	F
NEW HAVEN	35	9	4	18.8	F
NEW LONDON	15	3	1	7.2	F
TOLLAND	19	6	0	9.3	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
FAIRFIELD	9	1	0	3.5	F	13.3	PASS
HARTFORD	9	1	0	3.5	F	13.1	PASS
LITCHFIELD	*	*	*	*	*	*	INC
MIDDLESEX	DNC	DNC	DNC	DNC	DNC	DNC	DNC
NEW HAVEN	26	1	0	9.2	F	16.7	FAIL
NEW LONDON	2	1	0	1.2	C	12.0	PASS
TOLLAND	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- No changes occurred in ozone grades or monitors.

24-Hour Particle Pollution
- Hartford County's grade dropped from a D to an F.
- New London County's grade dropped from a B to a C.

Annual Particle Pollution
- There were no changes in grades

(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	134,390	35,802	16,204	3,047	7,318	3,942	1,434	32,341	6,431
NEW CASTLE	515,074	126,273	58,807	10,746	29,051	15,482	5,484	125,682	24,921
SUSSEX	168,027	36,767	31,885	3,129	9,581	5,608	2,462	50,888	10,306
TOTALS	**817,491**	**198,842**	**106,896**	**16,922**	**45,950**	**25,032**	**9,380**	**208,911**	**41,658**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
KENT	19	2	0	7.3	F
NEW CASTLE	36	5	0	14.5	F
SUSSEX	28	3	0	10.8	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
KENT	6	2	0	3.0	D	13.1	PASS
NEW CASTLE	25	3	0	9.8	F	16.2	FAIL
SUSSEX	6	2	0	3.0	D	13.6	PASS

Ozone
- No changes occurred in ozone grades or monitors.

24-Hour Particle Pollution
- No changes occurred in particle pollution grades or monitors.

Annual Particle Pollution
- There were no changes in grades

(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	564,353	108,403	67,845	9,225	35,784	17,846	6,129	143,051	28,012
TOTALS	**564,353**	**108,403**	**67,845**	**9,225**	**35,784**	**17,846**	**6,129**	**143,051**	**28,012**

(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 the District of Columbia
475 H Street, NW
Washington, DC 20001-2617
(202) 682-5864 www.aladc.org

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
WASHINGTON	25	10	1	14.0	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
WASHINGTON	30	0	0	10.0	F	15.8	FAIL

Ozone
- No changes occurred in ozone grades or monitors.

24-Hour Particle Pollution
- No changes occurred in particle pollution grades or monitors.

Annual Particle Pollution
- There were no changes in grades

(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: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ALACHUA	223,578	44,248	21,779	3,766	10,958	6,780	2,087	50,888	9,928
BAKER	23,424	6,218	2,266	529	1,051	678	229	5,370	1,062
BAY	155,193	37,315	21,765	3,176	7,204	4,837	1,879	41,150	8,245
BREVARD	505,711	109,273	101,176	9,299	24,326	17,050	7,644	155,969	31,732
BROWARD	1,731,347	421,593	253,695	35,878	79,496	53,663	21,067	458,670	91,735
CITRUS	126,458	21,688	39,558	1,846	6,466	4,855	2,619	49,167	10,184
COLLIER	286,634	59,557	68,354	5,068	13,883	9,944	4,770	94,173	19,234
COLUMBIA	60,244	14,856	8,608	1,264	2,788	1,870	736	15,977	3,213
DUVAL	817,480	219,122	83,761	18,647	36,339	23,616	8,101	188,895	37,307
ESCAMBIA	295,886	70,819	41,256	6,027	13,796	9,123	3,480	76,029	15,303
HIGHLANDS	91,051	17,563	29,091	1,495	4,508	3,379	1,844	34,278	7,094
HILLSBOROUGH	1,073,407	276,181	124,342	23,503	48,419	31,795	11,373	259,341	51,429
HOLMES	18,986	4,291	2,888	365	897	603	238	5,164	1,033
LAKE	245,877	50,449	63,850	4,293	11,924	8,648	4,298	83,434	17,081
LEE	492,210	101,316	116,939	8,622	23,948	17,193	8,262	163,243	33,370

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALACHUA	1	0	0	0.3	B
BAKER	0	0	0	0.0	A
BAY	6	0	0	2.0	C
BREVARD	3	0	0	1.0	C
BROWARD	3	0	0	1.0	C
CITRUS	DNC	DNC	DNC	DNC	DNC
COLLIER	*	*	*	*	*
COLUMBIA	0	0	0	0.0	A
DUVAL	0	0	0	0.0	A
ESCAMBIA	6	0	0	2.0	C
HIGHLANDS	0	0	0	0.0	A
HILLSBOROUGH	8	1	0	3.2	D
HOLMES	1	0	0	0.3	B
LAKE	1	0	0	0.3	B
LEE	1	0	0	0.3	B

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALACHUA	0	0	0	0.0	A	10.0	PASS
BAKER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BAY	0	0	0	0.0	A	*	INC
BREVARD	0	0	0	0.0	A	7.9	PASS
BROWARD	2	1	0	1.2	C	8.3	PASS
CITRUS	0	0	0	0.0	A	9.0	PASS
COLLIER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
COLUMBIA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DUVAL	3	0	0	1.0	C	10.4	PASS
ESCAMBIA	0	0	0	0.0	A	11.2	PASS
HIGHLANDS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HILLSBOROUGH	0	0	0	0.0	A	11.0	PASS
HOLMES	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LAKE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LEE	0	0	0	0.0	A	8.3	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.

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	242,577	51,413	20,452	4,375	11,681	7,237	2,172	54,021	10,518
MANATEE	286,804	61,925	66,526	5,270	13,758	9,841	4,691	92,958	18,979
MARION	280,288	60,090	67,106	5,114	13,496	9,683	4,680	92,020	18,835
MIAMI-DADE	2,341,167	575,889	317,289	49,008	107,298	71,555	27,153	600,166	119,805
ORANGE	964,865	250,426	93,658	21,311	43,134	27,701	9,086	216,782	42,427
OSCEOLA	205,870	54,893	22,804	4,671	9,158	5,967	2,089	48,116	9,508
PALM BEACH	1,216,282	264,730	269,119	22,529	58,021	41,145	19,131	382,976	77,969
PASCO	388,906	81,401	92,926	6,927	18,790	13,469	6,470	127,672	26,073
PINELLAS	926,146	184,048	196,247	15,662	45,494	32,223	14,736	298,638	60,812
POLK	510,458	127,066	90,709	10,813	23,446	16,146	6,926	143,944	29,123
SAINT LUCIE	213,447	48,161	46,575	4,099	10,110	7,153	3,325	66,576	13,562
SANTA ROSA	133,092	33,974	15,549	2,891	6,056	4,003	1,461	33,045	6,589
SARASOTA	346,793	58,260	104,102	4,958	17,753	13,231	6,979	132,408	27,337
SEMINOLE	386,374	96,107	41,516	8,179	17,729	11,655	4,127	95,078	18,883
VOLUSIA	468,663	95,528	99,753	8,129	22,905	16,103	7,345	148,368	30,242
WAKULLA	26,131	6,111	3,006	520	1,222	804	288	6,575	1,307
TOTALS	**15,085,349**	**3,504,511**	**2,526,665**	**298,234**	**706,054**	**481,950**	**199,286**	**4,221,091**	**849,919**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
LEON	0	0	0	0.0	A
MANATEE	4	0	0	1.3	C
MARION	1	0	0	0.3	B
MIAMI-DADE	2	0	0	0.7	B
ORANGE	1	0	0	0.3	B
OSCEOLA	2	0	0	0.7	B
PALM BEACH	1	0	0	0.3	B
PASCO	3	0	0	1.0	C
PINELLAS	2	0	0	0.7	B
POLK	4	0	0	1.3	C
SAINT LUCIE	2	0	0	0.7	B
SANTA ROSA	5	0	0	1.7	C
SARASOTA	6	1	0	2.5	D
SEMINOLE	1	0	0	0.3	B
VOLUSIA	0	0	0	0.0	A
WAKULLA	4	0	0	1.3	C

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
LEON	0	0	0	0.0	A	12.4	PASS
MANATEE	1	0	0	0.3	B	*	INC
MARION	0	0	0	0.0	A	9.8	PASS
MIAMI-DADE	1	0	0	0.3	B	9.5	PASS
ORANGE	3	0	0	1.0	C	10.0	PASS
OSCEOLA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PALM BEACH	0	0	0	0.0	A	7.4	PASS
PASCO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PINELLAS	0	0	0	0.0	A	10.3	PASS
POLK	1	0	0	0.3	B	10.1	PASS
SAINT LUCIE	0	0	0	0.0	A	8.4	PASS
SANTA ROSA	*	*	*	*	*	*	INC
SARASOTA	1	0	0	0.3	B	9.1	PASS
SEMINOLE	0	0	0	0.0	A	9.0	PASS
VOLUSIA	0	0	0	0.0	A	9.1	PASS
WAKULLA	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Baker County, Duval County, and Volusia County improved their grades from a B to an A
- Bay County, Escambia County, and Santa Rosa County improved their grades from an F to a C.
- Manatee County improved its grade from a D to a C.
- Orange County and Pinellas County improved their grades from a C to a B.
- Lake County's grade dropped from an A to a B.
- Columbia County, Highlands County and Wakulla County now have sufficient data to grade them.

24-Hour Particle Pollution
- Alachua County, Escambia County, and Palm Beach County improved their grades from a B to an A.
- Hillsborough County and Pinellas County improved their grades from a C to an A.
- Sufficient data now exist to grade Bay County.
- Miami-Dade County improved its grade from a C to a B.

Annual Particle Pollution
- There were no changes in grades

(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	154,287	41,698	19,514	3,548	7,882	4,547	1,701	37,804	7,551
CHATHAM	235,270	59,413	29,559	5,056	12,354	7,044	2,584	57,978	11,539
CHEROKEE	166,639	46,454	11,308	3,953	8,415	4,571	1,350	34,306	6,636
CLARKE	103,691	18,417	8,527	1,567	6,318	3,064	809	21,258	4,048
CLAYTON	259,736	78,706	17,083	6,698	12,756	6,774	1,935	49,836	9,576
COBB	651,027	170,794	48,265	14,535	33,480	18,419	5,599	140,024	27,211
COFFEE	38,994	10,874	3,859	925	1,986	1,095	366	8,634	1,696
COWETA	101,395	28,510	8,481	2,426	5,091	2,815	893	21,780	4,248
DAWSON	18,575	4,609	1,887	392	972	550	187	4,405	865
DEKALB	674,334	168,352	54,563	14,327	35,374	19,299	5,886	146,496	28,401
DOUGHERTY	95,684	26,529	11,255	2,258	4,887	2,765	1,003	22,586	4,505
DOUGLAS	102,015	28,156	7,682	2,396	5,182	2,841	875	21,690	4,227
FAYETTE	98,914	25,894	9,488	2,204	5,096	2,984	1,063	24,471	4,912
FLOYD	93,368	23,167	12,742	1,972	4,934	2,835	1,073	23,680	4,727
FULTON	818,322	205,526	63,259	17,490	42,858	23,455	7,139	177,873	34,602
GLYNN	70,131	17,446	10,127	1,485	3,667	2,179	864	18,710	3,763

(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 Southeast Region
2452 Spring Road
Smyrna, GA 30080-3862
(770) 434-5864 www.lungusa.org/georgia

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BIBB	14	1	0	5.2	F
CHATHAM	1	0	0	0.3	B
CHEROKEE	*	*	*	*	*
CLARKE	*	*	*	*	*
CLAYTON	DNC	DNC	DNC	DNC	DNC
COBB	17	3	0	7.2	F
COFFEE	DNC	DNC	DNC	DNC	DNC
COWETA	12	1	0	4.5	F
DAWSON	7	0	0	2.3	D
DEKALB	24	1	0	8.5	F
DOUGHERTY	DNC	DNC	DNC	DNC	DNC
DOUGLAS	30	1	0	10.5	F
FAYETTE	9	0	0	3.0	D
FLOYD	DNC	DNC	DNC	DNC	DNC
FULTON	19	3	0	7.8	F
GLYNN	1	0	0	0.3	B

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BIBB	2	0	0	0.7	B	15.2	FAIL
CHATHAM	2	1	0	1.2	C	13.8	PASS
CHEROKEE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CLARKE	2	1	0	1.2	C	15.6	FAIL
CLAYTON	2	0	0	0.7	B	16.1	FAIL
COBB	3	0	0	1.0	C	16.1	FAIL
COFFEE	*	*	*	*	*	*	INC
COWETA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DAWSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DEKALB	14	2	0	5.7	F	16.1	FAIL
DOUGHERTY	2	0	0	0.7	B	14.0	PASS
DOUGLAS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FAYETTE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FLOYD	5	0	0	1.7	C	15.6	FAIL
FULTON	13	1	0	4.8	F	18.0	FAIL
GLYNN	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
GWINNETT	673,345	188,721	37,879	16,060	33,957	18,127	4,997	132,045	25,316
HALL	156,101	43,026	14,437	3,662	7,967	4,350	1,398	33,710	6,569
HENRY	150,003	42,287	10,895	3,599	7,563	4,065	1,198	30,363	5,854
HOUSTON	120,434	33,007	11,636	2,809	6,145	3,424	1,146	26,993	5,327
LOWNDES	94,579	24,485	8,746	2,084	5,002	2,669	838	20,337	3,960
MURRAY	39,446	10,870	3,348	925	2,008	1,096	344	8,432	1,639
MUSCOGEE	185,702	50,576	21,506	4,304	9,532	5,390	1,938	43,790	8,737
PAULDING	100,071	30,317	5,643	2,580	4,896	2,553	674	18,182	3,440
RICHMOND	198,149	53,972	21,621	4,593	10,175	5,703	1,995	45,768	9,089
ROCKDALE	74,941	20,340	6,870	1,731	3,833	2,159	725	17,135	3,390
SUMTER	33,217	9,374	3,985	798	1,685	951	346	7,783	1,550
WALKER	62,584	15,107	8,574	1,286	3,307	1,939	744	16,400	3,277
WASHINGTON	20,780	5,333	2,593	454	1,084	619	228	5,108	1,016
WILKINSON	10,267	2,693	1,368	229	530	308	118	2,595	519
TOTALS	**5,602,001**	**1,484,653**	**476,700**	**126,346**	**288,936**	**158,590**	**50,016**	**1,220,172**	**238,190**

(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 the Southeast Region
2452 Spring Road
Smyrna, GA 30080-3862
(770) 434-5864 www.lungusa.org/georgia

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
GWINNETT	13	2	0	5.3	F
HALL	DNC	DNC	DNC	DNC	DNC
HENRY	12	2	1	5.7	F
HOUSTON	DNC	DNC	DNC	DNC	DNC
LOWNDES	DNC	DNC	DNC	DNC	DNC
MURRAY	18	0	0	6.0	F
MUSCOGEE	2	0	0	0.7	B
PAULDING	15	2	0	6.0	F
RICHMOND	8	0	0	2.7	D
ROCKDALE	15	4	0	7.0	F
SUMTER	4	0	0	1.3	C
WALKER	DNC	DNC	DNC	DNC	DNC
WASHINGTON	DNC	DNC	DNC	DNC	DNC
WILKINSON	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
GWINNETT	2	0	0	0.7	B	15.6	FAIL
HALL	1	0	0	0.3	B	*	INC
HENRY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HOUSTON	1	0	0	0.3	B	12.8	PASS
LOWNDES	1	0	0	0.3	B	11.7	PASS
MURRAY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MUSCOGEE	5	1	0	2.2	D	14.7	PASS
PAULDING	1	0	0	0.3	B	14.1	PASS
RICHMOND	2	0	0	0.7	B	14.7	PASS
ROCKDALE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SUMTER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WALKER	1	0	0	0.3	B	15.5	FAIL
WASHINGTON	0	1	0	0.5	B	14.1	PASS
WILKINSON	4	0	0	1.3	C	14.9	PASS

Ozone
- Muscogee County improved its grade from a D to a B.
- Fayette County and Richmond County improved their grades from an F to a D.
- Sumter County improved its grade from a D to a C.
- Sufficient data no longer exists to grade Cherokee County.

24-Hour Particle Pollution
- Clayton County improved its grade from a D to a B.
- Six counties improved their grades from a C to a B: Bibb, Doughtery, Gwinnett, Paulding, Richmond, and Walker.
- Cobb County improved its grade from a D to a C.
- Muscogee County improved its grade from an F to a D.

Annual Particle Pollution
- Grades for Muscogee County, Paulding County, Richmond County and Wilkinson County 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.

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	158,423	40,799	21,292	3,472	6,638	4,893	1,924	41,845	8,461
HONOLULU	902,709	208,191	124,000	17,717	39,670	28,204	10,711	236,803	47,302
MAUI	135,605	32,953	15,481	2,804	5,853	4,172	1,523	34,501	6,899
TOTALS	**1,196,737**	**281,943**	**160,773**	**23,993**	**52,161**	**37,269**	**14,158**	**313,149**	**62,662**

(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 2001-2003[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 2001-2003[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	5.3	PASS
MAUI	0	0	0	0.0	A	5.0	PASS

Ozone
- There were no changes in ozone monitors or grades.

24-Hour Particle Pollution
- There were no changes in particle pollution monitors or grades.

Annual Particle Pollution
- There were no changes in grades

(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: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ADA	325,151	85,745	30,085	7,297	18,711	9,337	3,065	73,206	14,377
BANNOCK	75,630	20,903	7,897	1,779	4,295	2,155	742	17,194	3,402
BENEWAH	9,029	2,260	1,386	192	549	289	121	2,566	522
BOISE	7,236	1,765	779	150	447	228	85	1,919	388
BONNER	39,162	9,110	5,301	775	2,447	1,271	507	11,018	2,236
BONNEVILLE	87,007	26,428	9,015	2,249	4,786	2,419	857	19,574	3,903
BOUNDARY	10,173	2,710	1,328	231	604	313	124	2,694	547
BUTTE	2,873	785	447	67	169	90	38	804	164
CANYON	151,508	45,894	15,626	3,906	8,200	4,122	1,407	32,650	6,441
CARIBOU	7,152	2,063	936	176	407	211	83	1,793	364
ELMORE	28,872	8,134	2,211	692	1,569	763	216	5,530	1,057
IDAHO	15,413	3,403	2,683	290	978	520	227	4,693	962
KOOTENAI	117,481	30,142	15,122	2,565	6,936	3,572	1,359	30,067	6,025
LATAH	35,087	6,720	3,405	572	2,201	1,073	330	7,945	1,573
LEMHI	7,731	1,786	1,330	152	487	260	114	2,364	485
NEZ PERCE	37,699	8,460	6,400	720	2,320	1,226	512	10,795	2,183
POWER	7,373	2,290	839	195	406	208	78	1,732	350
SHOSHONE	12,993	2,792	2,393	238	827	444	197	4,060	830
TWIN FALLS	67,082	17,859	9,495	1,520	3,886	2,014	788	17,104	3,436
VALLEY	7,743	1,608	1,225	137	505	267	113	2,389	490
TOTALS	**1,052,395**	**280,857**	**117,903**	**23,903**	**60,730**	**30,782**	**10,963**	**250,097**	**49,735**

(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/Nevada
P.O. Box 7506
Boise, ID 83707
(208) 345-5864 www.lungusa.org/idaho_nevada

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ADA	2	0	0	0.7	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	*	*	*	*	*
CARIBOU	DNC	DNC	DNC	DNC	DNC
ELMORE	0	0	0	0.0	A
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 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADA	12	0	0	4.0	F	9.1	PASS
BANNOCK	9	0	0	3.0	D	8.2	PASS
BENEWAH	*	*	*	*	*	*	INC
BOISE	*	*	*	*	*	*	INC
BONNER	0	0	0	0.0	A	*	INC
BONNEVILLE	0	0	0	0.0	A	*	INC
BOUNDARY	*	*	*	*	*	*	INC
BUTTE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CANYON	6	2	0	3.0	D	9.6	PASS
CARIBOU	*	*	*	*	*	*	INC
ELMORE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
IDAHO	*	*	*	*	*	*	INC
KOOTENAI	0	0	0	0.0	A	*	INC
LATAH	*	*	*	*	*	*	INC
LEMHI	*	*	*	*	*	*	INC
NEZ PERCE	0	0	0	0.0	A	*	INC
POWER	0	0	0	0.0	A	10.7	PASS
SHOSHONE	5	0	0	1.7	C	12.7	PASS
TWIN FALLS	0	0	0	0.0	A	*	INC
VALLEY	*	*	*	*	*	*	INC

Ozone
- Sufficient data now exist to grade Ada and Elmore Counties.

24-Hour Particle Pollution
- Bannock County and Canyon County improved their grades from an F to a D.
- Power County improved its grade from a C to an A.
- Bonner County improved its grades from a B to an A.
- Monitors are now operating in Benewah County, Idaho County, and Lemhi County, but haven't collected enough data to grade.

Annual Particle Pollution
- There were no changes in grades

(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	67,582	16,110	11,906	1,371	3,889	2,163	919	19,176	3,880
CHAMPAIGN	186,800	38,548	18,126	3,280	11,381	5,568	1,695	40,992	8,073
CLARK	16,998	3,971	2,982	338	983	549	234	4,886	988
COOK	5,351,552	1,385,127	620,097	117,874	298,248	157,488	55,992	1,280,688	253,277
DU PAGE	925,188	239,742	92,466	20,402	51,723	27,277	9,403	219,605	43,459
EFFINGHAM	34,529	9,199	4,839	783	1,912	1,037	405	8,817	1,767
HAMILTON	8,334	1,849	1,614	157	490	279	124	2,536	516
JERSEY	22,188	5,114	3,221	435	1,297	698	272	5,912	1,188
KANE	457,122	134,210	36,358	11,421	24,356	12,413	3,877	95,132	18,548
LAKE	685,019	194,130	59,557	16,520	37,158	19,198	6,284	149,966	29,601
LA SALLE	112,037	26,922	18,112	2,291	6,422	3,540	1,452	30,895	6,220
MCHENRY	286,091	80,759	23,807	6,873	15,473	7,990	2,568	62,221	12,188
MCLEAN	156,879	35,849	14,980	3,051	9,243	4,608	1,444	34,642	6,834
MACON	111,175	26,701	17,446	2,272	6,413	3,539	1,453	30,899	6,253
MACOUPIN	49,055	11,313	8,314	963	2,855	1,580	660	13,893	2,809
MADISON	261,689	62,432	36,380	5,313	15,056	8,124	3,120	68,601	13,723
PEORIA	182,335	45,568	25,589	3,878	10,357	5,603	2,179	47,512	9,544
RANDOLPH	33,244	7,026	5,149	598	1,979	1,072	421	9,146	1,829
ROCK ISLAND	147,912	34,560	22,519	2,941	8,586	4,691	1,878	40,449	8,139
SAINT CLAIR	258,606	68,769	33,020	5,852	14,337	7,668	2,871	63,879	12,741
SANGAMON	191,875	46,526	25,559	3,959	10,971	5,951	2,276	50,354	10,070
WILL	586,706	166,878	47,082	14,201	31,635	16,141	5,040	123,745	24,120
WINNEBAGO	284,313	73,482	36,072	6,253	15,905	8,542	3,199	71,404	14,227
TOTALS	**10,417,229**	**2,714,785**	**1,165,195**	**231,026**	**580,669**	**305,719**	**107,766**	**2,475,350**	**489,994**

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

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

American Lung Association of Illinois-Iowa
3000 Kelly Lane
Springfield, IL 62711-6226
(217) 787-5864 www.lungilia.org

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ADAMS	3	0	0	1.0	C
CHAMPAIGN	1	0	0	0.3	B
CLARK	6	0	0	2.0	C
COOK	29	5	0	12.2	F
DU PAGE	3	0	0	1.0	C
EFFINGHAM	2	0	0	0.7	B
HAMILTON	8	0	0	2.7	D
JERSEY	11	3	0	5.2	F
KANE	4	0	0	1.3	C
LAKE	11	3	0	5.2	F
LA SALLE	DNC	DNC	DNC	DNC	DNC
MCHENRY	9	0	0	3.0	D
MCLEAN	6	0	0	2.0	C
MACON	4	0	0	1.3	C
MACOUPIN	6	0	0	2.0	C
MADISON	30	1	0	10.5	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	1	0	0	0.3	B
WILL	12	0	0	4.0	F
WINNEBAGO	2	0	0	0.7	B

Ozone
- Clark County and McLean County now have sufficient data grade them.
- Hamilton County improved its grade from an F to a D.
- Macoupin County improved its grade from a D to a C.

24-Hour Particle Pollution
- McHenry County improved its grade from a B to an A.
- Winnebago County has improved its grade from a C to a B.

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS	1	0	0	0.3	B	13.1	PASS
CHAMPAIGN	0	0	0	0.0	A	12.6	PASS
CLARK	DNC	DNC	DNC	DNC	DNC	DNC	DNC
COOK	35	0	0	11.7	F	17.3	FAIL
DU PAGE	1	0	0	0.3	B	14.4	PASS
EFFINGHAM	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HAMILTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JERSEY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KANE	2	0	0	0.7	B	14.2	PASS
LAKE	1	0	0	0.3	B	12.8	PASS
LA SALLE	1	0	0	0.3	B	*	INC
MCHENRY	0	0	0	0.0	A	12.7	PASS
MCLEAN	1	0	0	0.3	B	13.6	PASS
MACON	1	0	0	0.3	B	14.0	PASS
MACOUPIN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MADISON	13	0	0	4.3	F	17.5	FAIL
PEORIA	2	0	0	0.7	B	13.8	PASS
RANDOLPH	0	0	0	0.0	A	12.4	PASS
ROCK ISLAND	0	0	0	0.0	A	12.4	PASS
SAINT CLAIR	5	1	0	2.2	D	16.2	FAIL
SANGAMON	1	0	0	0.3	B	13.3	PASS
WILL	3	0	0	1.0	C	14.7	PASS
WINNEBAGO	2	0	0	0.7	B	*	INC

- McLean County's grade dropped from an A to a B.
- Will County's grade dropped from a B to a C.

Annual Particle Pollution
- Grades for Du Page County and Will County 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.

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	340,153	95,651	38,145	8,140	19,775	9,799	3,531	80,403	15,953
BOONE	49,370	13,551	5,540	1,153	2,894	1,446	525	11,932	2,375
CARROLL	20,499	5,205	2,834	443	1,230	630	246	5,380	1,078
CLARK	99,482	24,330	12,348	2,070	6,061	3,041	1,126	25,355	5,039
DELAWARE	117,488	25,973	15,929	2,210	7,482	3,660	1,351	29,967	6,003
DUBOIS	40,200	10,696	5,276	910	2,376	1,204	460	10,159	2,031
ELKHART	188,779	55,262	20,471	4,703	10,804	5,312	1,885	43,196	8,551
FLOYD	71,148	18,109	8,665	1,541	4,283	2,160	805	18,065	3,604
GIBSON	32,991	8,045	5,019	685	2,006	1,032	414	8,913	1,791
GREENE	33,244	8,137	4,970	692	2,016	1,041	417	9,009	1,810
HAMILTON	216,826	64,339	15,987	5,475	12,368	5,861	1,804	44,817	8,714
HANCOCK	59,446	15,172	6,861	1,291	3,581	1,794	656	14,877	2,963
HENDRICKS	118,850	31,962	11,760	2,720	7,040	3,423	1,161	27,323	5,377
HENRY	47,699	11,467	7,586	976	2,901	1,521	628	13,372	2,697
HOWARD	84,880	22,170	11,535	1,887	5,046	2,591	1,014	22,194	4,451
HUNTINGTON	38,143	9,674	5,468	823	2,297	1,166	457	9,921	1,992

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALLEN	21	0	0	7.0	F
BOONE	20	2	0	7.7	F
CARROLL	15	0	0	5.0	F
CLARK	25	0	0	8.3	F
DELAWARE	20	0	0	6.7	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	23	0	0	7.7	F
HAMILTON	23	3	0	9.2	F
HANCOCK	28	3	0	10.8	F
HENDRICKS	13	1	0	4.8	F
HENRY	DNC	DNC	DNC	DNC	DNC
HOWARD	DNC	DNC	DNC	DNC	DNC
HUNTINGTON	13	1	0	4.8	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALLEN	2	0	0	0.7	B	14.3	PASS
BOONE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CARROLL	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CLARK	7	0	0	2.3	D	16.2	FAIL
DELAWARE	2	0	0	0.7	B	*	INC
DUBOIS	5	0	0	1.7	C	16.2	FAIL
ELKHART	2	0	0	0.7	B	15.2	FAIL
FLOYD	4	0	0	1.3	C	14.9	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	2	0	0	0.7	B	13.6	PASS
HOWARD	1	0	0	0.3	B	14.7	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.

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	41,639	10,773	5,530	917	2,483	1,255	478	10,576	2,108
JOHNSON	123,256	32,894	13,552	2,799	7,312	3,595	1,270	29,179	5,777
KNOX	38,745	8,642	6,021	735	2,452	1,234	489	10,473	2,118
KOSCIUSKO	75,301	20,748	9,232	1,766	4,406	2,216	830	18,530	3,698
LAKE	487,476	129,244	63,287	10,999	28,921	14,652	5,603	123,790	24,768
LA PORTE	109,878	26,836	14,817	2,284	6,694	3,397	1,302	28,754	5,748
MADISON	131,121	31,634	19,715	2,692	7,995	4,123	1,652	35,635	7,163
MARION	863,251	232,171	94,419	19,758	50,869	24,929	8,699	201,224	39,656
MORGAN	68,656	18,184	7,503	1,547	4,087	2,034	731	16,706	3,323
PERRY	18,717	4,159	2,725	354	1,176	595	231	5,060	1,012
PORTER	152,533	37,846	16,911	3,221	9,330	4,628	1,663	37,931	7,569
POSEY	26,876	6,991	3,399	595	1,606	818	313	6,921	1,388
SAINT JOSEPH	266,348	69,633	35,370	5,926	15,944	7,954	3,009	66,206	13,278
SHELBY	43,717	11,530	5,465	981	2,594	1,310	493	10,980	2,192
SPENCER	20,343	5,209	2,707	443	1,220	624	242	5,315	1,067
TIPPECANOE	154,848	32,319	13,908	2,750	10,219	4,549	1,330	32,893	6,433
VANDERBURGH	171,889	40,568	25,346	3,452	10,608	5,369	2,100	45,625	9,150
VIGO	104,540	24,086	14,291	2,050	6,549	3,237	1,212	26,763	5,362
WARRICK	54,744	14,126	6,088	1,202	3,289	1,652	602	13,686	2,731
TOTALS	**4,513,076**	**1,177,336**	**538,680**	**100,190**	**269,914**	**133,852**	**48,729**	**1,101,130**	**218,970**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
JACKSON	12	0	0	4.0	F
JOHNSON	14	1	0	5.2	F
KNOX	DNC	DNC	DNC	DNC	DNC
KOSCIUSKO	*	*	*	*	*
LAKE	32	1	0	11.2	F
LA PORTE	25	6	0	11.3	F
MADISON	26	2	0	9.7	F
MARION	25	3	1	10.5	F
MORGAN	17	0	0	5.7	F
PERRY	*	*	*	*	*
PORTER	23	3	0	9.2	F
POSEY	13	1	0	4.8	F
SAINT JOSEPH	31	3	0	11.8	F
SHELBY	22	3	0	8.8	F
SPENCER	DNC	DNC	DNC	DNC	DNC
TIPPECANOE	DNC	DNC	DNC	DNC	DNC
VANDERBURGH	17	1	0	6.2	F
VIGO	13	0	0	4.3	F
WARRICK	22	1	0	7.8	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
JACKSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JOHNSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KNOX	2	0	0	0.7	B	*	INC
KOSCIUSKO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LAKE	35	1	0	12.2	F	17.7	FAIL
LA PORTE	2	0	0	0.7	B	13.6	PASS
MADISON	4	0	0	1.3	C	*	INC
MARION	15	2	0	6.0	F	16.7	FAIL
MORGAN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PERRY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PORTER	2	0	0	0.7	B	13.8	PASS
POSEY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SAINT JOSEPH	3	0	0	1.0	C	14.3	PASS
SHELBY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SPENCER	0	0	0	0.0	A	14.4	PASS
TIPPECANOE	3	0	0	1.0	C	*	INC
VANDERBURGH	6	0	0	2.0	C	15.5	FAIL
VIGO	5	0	0	1.7	C	14.6	PASS
WARRICK	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Gibson County's grade dropped from an A to a B.
- Carroll County and Delaware County now have sufficient data to grade them.
- Monitors are now operating in Kosciusko County but haven't collected enough data to grade.

24-Hour Particle Pollution
- Clark County improved its grade from an F to a D.
- Spenser County improved its grade from a B to an A.
- Howard County's grade dropped from an A to a B.
- Saint Joseph County's and Tippecanoe County's grades dropped from a B to a C.

Annual Particle Pollution
- Grades for Floyd County, Howard County and Vigo County 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.

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	126,418	27,772	17,870	2,363	6,202	3,998	1,520	33,425	6,697
BREMER	23,368	5,107	3,737	435	1,140	760	309	6,546	1,330
CERRO GORDO	45,118	9,922	7,970	844	2,176	1,487	632	13,225	2,677
CLINTON	49,804	11,891	7,997	1,012	2,351	1,586	654	13,909	2,805
EMMET	10,805	2,392	2,103	204	519	359	159	3,253	663
HARRISON	15,667	3,743	2,690	319	737	502	213	4,459	901
JOHNSON	115,548	22,290	8,761	1,897	6,031	3,440	951	24,515	4,744
LINN	196,202	48,124	24,587	4,095	9,291	5,964	2,198	49,424	9,827
MONTGOMERY	11,289	2,632	2,212	224	530	375	170	3,453	704
MUSCATINE	42,093	10,728	5,370	913	1,960	1,280	485	10,778	2,153
PALO ALTO	9,705	2,097	2,107	178	467	329	152	3,038	621
POLK	388,606	97,968	42,727	8,337	18,294	11,526	4,030	93,249	18,407
POTTAWATTAMIE	88,477	21,541	12,102	1,833	4,184	2,732	1,048	23,084	4,616
SCOTT	159,414	39,882	19,032	3,394	7,493	4,830	1,770	39,997	7,964
STORY	83,021	14,666	8,242	1,248	4,432	2,543	757	18,421	3,626
VAN BUREN	7,777	1,796	1,499	153	367	258	115	2,359	480
WARREN	41,997	10,377	5,050	883	1,986	1,279	470	10,557	2,111
WOODBURY	103,220	27,336	13,401	2,326	4,757	3,071	1,157	25,673	5,121
WRIGHT	13,765	3,170	2,847	270	647	462	213	4,298	879
TOTALS	**1,532,294**	**363,434**	**190,304**	**30,928**	**73,564**	**46,781**	**17,003**	**383,663**	**76,326**

(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 Illinois-Iowa
5601 Douglas Avenue
Des Moines, IA 50310-1800
(515) 278-5864 www.lungilia.org

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BLACK HAWK	DNC	DNC	DNC	DNC	DNC
BREMER	1	0	0	0.3	B
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	*	*	*	*	*
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 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BLACK HAWK	1	0	0	0.3	B	11.3	PASS
BREMER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CERRO GORDO	0	0	0	0.0	A	10.7	PASS
CLINTON	1	0	0	0.3	B	12.3	PASS
EMMET	0	0	0	0.0	A	9.0	PASS
HARRISON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JOHNSON	1	0	0	0.3	B	11.6	PASS
LINN	5	0	0	1.7	C	11.2	PASS
MONTGOMERY	*	*	*	*	*	*	INC
MUSCATINE	3	0	0	1.0	C	13.0	PASS
PALO ALTO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
POLK	1	0	0	0.3	B	10.6	PASS
POTTAWATTAMIE	0	0	0	0.0	A	10.7	PASS
SCOTT	6	0	0	2.0	C	12.5	PASS
STORY	*	*	*	*	*	*	INC
VAN BUREN	0	0	0	0.0	A	10.6	PASS
WARREN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WOODBURY	0	0	0	0.0	A	10.3	PASS
WRIGHT	*	*	*	*	*	*	INC

Ozone
- Linn County and Warren County improved their grades from a B to an A.
- Scott County improved its grade from a C to a B.

24-Hour Particle Pollution
- Muscatine County's grade dropped from a B to a C.
- Polk County's grade dropped from an A to a B.
- Story County no longer has sufficient data to grade pollution
- Monitors are now operating in Wright County, but haven't collected enough data to grade.

Annual Particle Pollution
- There were no changes in grades

(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	102,983	20,432	8,349	1,739	6,703	3,035	846	21,574	4,183
JEFFERSON	18,798	4,652	2,474	396	1,062	583	225	4,948	996
JOHNSON	486,515	126,313	48,145	10,749	27,287	14,238	4,845	113,880	22,456
LEAVENWORTH	71,546	17,979	6,866	1,530	4,100	2,092	692	16,464	3,234
LINN	9,722	2,313	1,691	197	547	316	136	2,833	576
SEDGWICK	462,896	127,910	52,133	10,885	25,448	13,359	4,776	108,983	21,602
SHAWNEE	170,902	42,436	23,440	3,611	9,636	5,280	2,049	44,927	9,008
SUMNER	25,256	6,669	4,050	568	1,383	785	330	6,927	1,406
TREGO	3,103	637	780	54	179	110	55	1,061	219
WYANDOTTE	157,092	44,404	17,450	3,779	8,600	4,468	1,582	36,239	7,167
TOTALS	**1,508,813**	**393,745**	**165,378**	**33,508**	**84,945**	**44,266**	**15,536**	**357,836**	**70,847**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
DOUGLAS	*	*	*	*	*
JEFFERSON	*	*	*	*	*
JOHNSON	*	*	*	*	*
LEAVENWORTH	*	*	*	*	*
LINN	0	0	0	0.0	A
SEDGWICK	6	0	0	2.0	C
SHAWNEE	DNC	DNC	DNC	DNC	DNC
SUMNER	3	0	0	1.0	C
TREGO	0	0	0	0.0	A
WYANDOTTE	5	0	0	1.7	C

PARTICLE POLLUTION DAYS 2001-2003[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	11.8	PASS
LEAVENWORTH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LINN	0	0	0	0.0	A	10.8	PASS
SEDGWICK	1	0	0	0.3	B	11.1	PASS
SHAWNEE	1	0	0	0.3	B	11.0	PASS
SUMNER	0	0	0	0.0	A	10.2	PASS
TREGO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WYANDOTTE	3	0	0	1.0	C	13.9	PASS

Ozone
- Linn County improved its grade from a C to an A.
- Trego County improved its grade from a B to an A.
- Monitors are now operating in Douglas County, Johnson County, and Leavenworth County, but haven't collected enough data to grade.

24-Hour Particle Pollution
- Shawnee County's grade dropped from an A to a B.
- Sumner County improved its grade from a B to an A.

Annual Particle Pollution
- There were no changes in grades

(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
BELL	29,953	7,024	4,120	598	2,259	940	362	7,965	1,595
BOONE	97,139	26,934	7,892	2,292	6,828	2,712	855	20,926	4,084
BOYD	49,554	10,491	7,625	893	3,855	1,627	653	14,123	2,839
BULLITT	64,909	16,568	5,300	1,410	4,709	1,890	605	14,726	2,890
CAMPBELL	87,970	22,105	11,118	1,881	6,470	2,654	983	22,007	4,385
CARTER	27,144	6,474	3,497	551	2,036	836	312	6,958	1,389
CHRISTIAN	69,912	20,824	7,090	1,772	4,817	1,868	607	14,412	2,806
DAVIESS	92,540	23,488	12,838	1,999	6,814	2,837	1,106	24,139	4,846
EDMONSON	11,869	2,679	1,683	228	906	378	147	3,227	647
FAYETTE	266,798	57,723	26,953	4,912	20,413	8,085	2,630	62,896	12,318
FRANKLIN	48,051	10,758	5,873	916	3,660	1,511	554	12,514	2,497
GRAVES	37,252	9,018	5,720	767	2,789	1,174	476	10,207	2,054
GREENUP	36,952	8,297	5,628	706	2,830	1,200	486	10,455	2,109
HANCOCK	8,433	2,219	930	189	609	252	92	2,088	416
HARDIN	96,052	25,538	9,827	2,173	6,914	2,775	947	22,039	4,366

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BELL	10	0	0	3.3	F
BOONE	17	0	0	5.7	F
BOYD	30	3	0	11.5	F
BULLITT	12	0	0	4.0	F
CAMPBELL	31	3	0	11.8	F
CARTER	5	0	0	1.7	C
CHRISTIAN	12	0	0	4.0	F
DAVIESS	5	0	0	1.7	C
EDMONSON	7	0	0	2.3	D
FAYETTE	4	0	0	1.3	C
FRANKLIN	DNC	DNC	DNC	DNC	DNC
GRAVES	7	0	0	2.3	D
GREENUP	9	0	0	3.0	D
HANCOCK	8	0	0	2.7	D
HARDIN	5	0	0	1.7	C

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BELL	2	0	0	0.7	B	14.5	PASS
BOONE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BOYD	4	0	0	1.3	C	14.9	PASS
BULLITT	4	0	0	1.3	C	14.9	PASS
CAMPBELL	4	0	0	1.3	C	13.9	PASS
CARTER	1	0	0	0.3	B	12.1	PASS
CHRISTIAN	0	0	0	0.0	A	13.5	PASS
DAVIESS	5	1	0	2.2	D	14.8	PASS
EDMONSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FAYETTE	6	0	0	2.0	C	15.6	FAIL
FRANKLIN	4	0	0	1.3	C	13.6	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	14.0	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				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
HENDERSON	45,129	10,722	5,919	912	3,383	1,406	533	11,832	2,367
JEFFERSON	699,017	169,594	93,315	14,432	51,982	21,586	8,215	182,029	36,340
JESSAMINE	41,508	10,590	4,054	901	3,028	1,209	403	9,500	1,875
KENTON	152,287	40,124	16,426	3,415	10,961	4,465	1,569	36,236	7,165
LAUREL	55,488	14,014	6,299	1,193	4,064	1,661	594	13,598	2,697
LIVINGSTON	9,726	2,064	1,475	176	755	321	129	2,792	562
MCCRACKEN	64,768	14,943	10,301	1,272	4,923	2,095	864	18,420	3,718
MCLEAN	9,872	2,332	1,406	198	743	313	123	2,690	540
MADISON	74,814	16,629	7,347	1,415	5,724	2,226	707	16,935	3,331
MUHLENBERG	31,691	7,035	4,865	599	2,437	1,026	413	8,892	1,789
OLDHAM	50,517	12,872	3,606	1,095	3,666	1,478	465	11,455	2,256
PERRY	29,492	7,000	3,333	596	2,205	906	325	7,435	1,478
PIKE	67,495	15,272	8,417	1,300	5,129	2,129	793	17,806	3,556
PULASKI	58,013	13,341	9,021	1,135	4,407	1,857	751	16,135	3,244
SCOTT	36,726	9,574	3,141	815	2,651	1,042	326	7,949	1,555
SIMPSON	16,664	4,315	2,133	367	1,212	502	189	4,203	839
TRIGG	12,877	2,884	2,173	245	987	423	178	3,758	759
WARREN	95,778	21,707	10,087	1,847	7,294	2,884	961	22,521	4,457
TOTALS	**2,576,390**	**625,152**	**309,412**	**53,200**	**191,460**	**78,268**	**28,353**	**642,868**	**127,769**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
HENDERSON	9	0	0	3.0	D
JEFFERSON	23	0	0	7.7	F
JESSAMINE	5	0	0	1.7	C
KENTON	21	2	0	8.0	F
LAUREL	DNC	DNC	DNC	DNC	DNC
LIVINGSTON	16	0	0	5.3	F
MCCRACKEN	7	0	0	2.3	D
MCLEAN	15	0	0	5.0	F
MADISON	DNC	DNC	DNC	DNC	DNC
MUHLENBERG	*	*	*	*	*
OLDHAM	17	1	0	6.2	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	6	0	0	2.0	C
TRIGG	0	0	0	0.0	A
WARREN	9	0	0	3.0	D

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
HENDERSON	4	0	0	1.3	C	*	INC
JEFFERSON	32	3	0	12.2	F	16.9	FAIL
JESSAMINE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KENTON	4	0	0	1.3	C	14.9	PASS
LAUREL	*	*	*	*	*	*	INC
LIVINGSTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MCCRACKEN	2	0	0	0.7	B	13.5	PASS
MCLEAN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MADISON	2	0	0	0.7	B	13.4	PASS
MUHLENBERG	DNC	DNC	DNC	DNC	DNC	DNC	DNC
OLDHAM	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PERRY	3	1	1	2.2	D	13.6	PASS
PIKE	4	0	0	1.3	C	13.7	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	13.8	PASS

Ozone
- Simpson County improved its grade from an F to a C.
- Edmonson County, Henderson County, and Warren County improved their grades from an F to a D.
- Hardin County improved its grade from a D to a C.
- Pulaski County improved its grade from a C to a B.
- Trigg County improved its grade from a B to an A.

24-Hour Particle Pollution
- Bell County and Madison County improved their grades from a C to a B.
- Fayette County improved its grade from a D to a C.
- Warren County improved its grade from a B to an A.
- Daviess County's grade dropped from a C to a D.

Annual Particle Pollution
- Grades for Bell County, Boyd County, Bullitt County, Campbell County, Hardin County, and Kenton County 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.

LOUISIANA

AT-RISK GROUPS[1]

Parish	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ASCENSION	84,424	24,111	6,354	2,052	3,718	2,310	707	17,527	3,415
BEAUREGARD	33,514	8,682	4,016	739	1,539	1,002	368	8,281	1,652
BOSSIER	101,999	27,471	11,186	2,338	4,613	2,953	1,036	23,816	4,717
CADDO	250,342	64,826	34,285	5,517	11,557	7,571	2,920	63,945	12,819
CALCASIEU	183,889	48,002	22,285	4,085	8,466	5,467	2,005	45,044	8,987
CONCORDIA	19,730	5,186	2,966	441	909	606	246	5,255	1,061
EAST BATON ROUGE	412,447	104,489	42,030	8,892	19,312	12,059	4,060	94,968	18,801
GRANT	18,887	5,120	2,378	436	853	563	214	4,731	948
IBERVILLE	32,811	8,289	3,609	705	1,525	971	339	7,808	1,546
JEFFERSON	452,459	111,275	55,409	9,470	21,049	13,826	5,112	114,936	22,920
LAFAYETTE	194,239	50,867	19,061	4,329	8,903	5,601	1,867	44,076	8,685
LAFOURCHE	91,281	23,348	10,468	1,987	4,230	2,705	963	21,947	4,363
LIVINGSTON	102,046	27,850	8,715	2,370	4,585	2,874	919	22,232	4,359
ORLEANS	469,032	122,599	53,947	10,433	21,516	13,824	4,948	112,449	22,376
OUACHITA	147,898	40,168	17,650	3,418	6,727	4,294	1,553	35,039	6,970
POINTE COUPEE	22,564	5,740	3,249	488	1,050	697	277	5,985	1,206
RAPIDES	127,394	33,239	16,747	2,829	5,867	3,827	1,454	32,064	6,425
SAINT BERNARD	66,113	16,014	9,130	1,363	3,108	2,053	793	17,410	3,487
SAINT CHARLES	49,353	13,858	4,516	1,179	2,195	1,402	471	11,095	2,199
SAINT JAMES	21,118	5,875	2,440	500	951	613	224	5,036	1,006

(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 2001-2003[1]

Parish	Orange	Red	Purple	Wgt. Avg	Grade
ASCENSION	2	0	0	0.7	B
BEAUREGARD	0	0	0	0.0	A
BOSSIER	4	0	0	1.3	C
CADDO	3	0	0	1.0	C
CALCASIEU	6	0	0	2.0	C
CONCORDIA	DNC	DNC	DNC	DNC	DNC
EAST BATON ROUGE	19	5	0	8.8	F
GRANT	2	0	0	0.7	B
IBERVILLE	18	1	0	6.5	F
JEFFERSON	10	0	0	3.3	F
LAFAYETTE	4	0	0	1.3	C
LAFOURCHE	3	0	0	1.0	C
LIVINGSTON	4	0	0	1.3	C
ORLEANS	0	0	0	0.0	A
OUACHITA	2	0	0	0.7	B
POINTE COUPEE	2	1	0	1.2	C
RAPIDES	DNC	DNC	DNC	DNC	DNC
SAINT BERNARD	4	0	0	1.3	C
SAINT CHARLES	3	0	0	1.0	C
SAINT JAMES	3	0	0	1.0	C

PARTICLE POLLUTION DAYS 2001-2003[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	*	*	*	*	*	*	INC
CADDO	1	0	0	0.3	B	12.6	PASS
CALCASIEU	1	1	0	0.8	B	11.3	PASS
CONCORDIA	0	0	0	0.0	A	*	INC
EAST BATON ROUGE	4	0	0	1.3	C	13.1	PASS
GRANT	DNC	DNC	DNC	DNC	DNC	DNC	DNC
IBERVILLE	1	0	0	0.3	B	12.4	PASS
JEFFERSON	0	0	0	0.0	A	12.2	PASS
LAFAYETTE	0	0	0	0.0	A	12.9	PASS
LAFOURCHE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LIVINGSTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ORLEANS	1	0	0	0.3	B	12.4	PASS
OUACHITA	1	0	0	0.3	B	11.4	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	10.4	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	44,816	13,148	3,495	1,119	1,966	1,231	390	9,483	1,866
SAINT MARY	52,357	14,663	6,214	1,248	2,343	1,526	566	12,646	2,531
TANGIPAHOA	103,591	27,550	10,731	2,345	4,766	2,996	1,027	23,848	4,726
TERREBONNE	106,107	29,326	10,809	2,496	4,774	3,036	1,046	24,297	4,809
WEST BATON ROUGE	21,717	5,670	2,210	483	997	635	218	5,083	1,007
TOTALS	**3,210,128**	**837,366**	**363,900**	**71,262**	**147,519**	**94,642**	**33,723**	**769,001**	**152,881**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
SAINT JOHN THE BAPTIST	3	0	0	1.0	C
SAINT MARY	0	0	0	0.0	A
TANGIPAHOA	DNC	DNC	DNC	DNC	DNC
TERREBONNE	DNC	DNC	DNC	DNC	DNC
WEST BATON ROUGE	8	3	0	4.2	F

PARTICLE POLLUTION DAYS 2001-2003[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	11.0	PASS
TERREBONNE	0	0	0	0.0	A	10.4	PASS
WEST BATON ROUGE	1	0	0	0.3	B	12.7	PASS

Ozone
- Six parishes improved their grades from an F to a C: Bossier, Calcasieu, Lafayette, Livingston, Saint Charles, and Saint John the Baptist.
- Beauregard Parish and Saint Mary Parish improved their grades from a C to an A.
- Grant Parish and Ouachita Parish improved their grades from a C to a B.
- Ascension Parish improved its grade from a D to a B.
- Lafourche Parish improved its grade from a D to a C.
- Point Coupee Parish's grade dropped from a B to a C.

24-Hour Particle Pollution
- Jefferson Parish and Tangipahoa Parish improved their grades from a B to an A.
- Calcasieu Parish, Orleans Parish, and West Baton Rouge Parish improved their grades from a C to a B.
- Rapides Parish's grade dropped from an A to a B.

Annual Particle Pollution
- There were no changes in grades

(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	106,115	24,098	15,057	2,051	8,109	3,354	1,295	28,369	5,688
AROOSTOOK	73,428	15,240	12,760	1,297	5,720	2,478	1,053	22,082	4,487
CUMBERLAND	270,923	60,174	36,001	5,121	20,804	8,612	3,261	72,404	14,494
HANCOCK	52,792	10,764	8,389	916	4,136	1,774	728	15,552	3,151
KENNEBEC	119,683	26,371	17,028	2,244	9,219	3,865	1,515	33,033	6,657
KNOX	40,406	8,356	6,957	711	3,140	1,366	580	12,204	2,474
OXFORD	56,151	12,210	9,048	1,039	4,318	1,854	767	16,311	3,300
PENOBSCOT	146,982	31,167	19,525	2,652	11,503	4,709	1,765	39,205	7,866
PISCATAQUIS	17,394	3,598	3,027	306	1,353	593	255	5,331	1,086
SAGADAHOC	36,455	8,635	4,626	735	2,743	1,143	434	9,656	1,933
YORK	198,030	45,481	26,941	3,870	15,033	6,297	2,437	53,640	10,765
TOTALS	**1,118,359**	**246,094**	**159,359**	**20,942**	**86,078**	**36,045**	**14,090**	**307,787**	**61,901**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ANDROSCOGGIN	DNC	DNC	DNC	DNC	DNC
AROOSTOOK	DNC	DNC	DNC	DNC	DNC
CUMBERLAND	12	1	0	4.5	F
HANCOCK	19	4	0	8.3	F
KENNEBEC	8	0	0	2.7	D
KNOX	12	2	0	5.0	F
OXFORD	1	0	0	0.3	B
PENOBSCOT	10	1	0	3.8	F
PISCATAQUIS	*	*	*	*	*
SAGADAHOC	*	*	*	*	*
YORK	22	5	0	9.8	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ANDROSCOGGIN	3	0	0	1.0	C	11.1	PASS
AROOSTOOK	1	0	0	0.3	B	11.5	PASS
CUMBERLAND	1	0	0	0.3	B	11.7	PASS
HANCOCK	2	0	0	0.7	B	6.5	PASS
KENNEBEC	1	0	0	0.3	B	10.9	PASS
KNOX	*	*	*	*	*	*	INC
OXFORD	0	0	0	0.0	A	10.3	PASS
PENOBSCOT	2	0	0	0.7	B	10.4	PASS
PISCATAQUIS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SAGADAHOC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
YORK	0	0	0	0.0	A	9.8	PASS

Ozone
- There were no changes in ozone grades or monitors.

24-Hour Particle Pollution
- Androscoggin County's grade dropped from a B to a C.
- Knox County no longer has sufficient data to grade.

Annual Particle Pollution
- There were no changes in grades

(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: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ANNE ARUNDEL	506,620	125,645	51,708	10,692	30,492	15,180	5,250	122,386	24,238
BALTIMORE	777,184	179,064	112,916	15,238	47,881	24,525	9,572	208,745	41,857
CALVERT	84,110	22,662	7,483	1,929	4,954	2,423	805	19,143	3,780
CARROLL	163,207	41,894	17,731	3,565	9,780	4,865	1,728	39,635	7,884
CECIL	92,746	24,187	9,729	2,058	5,497	2,732	955	22,125	4,380
CHARLES	133,049	36,496	10,442	3,106	7,825	3,748	1,182	28,928	5,668
FREDERICK	213,662	56,525	20,655	4,810	12,628	6,203	2,098	49,384	9,751
HARFORD	232,175	61,542	24,564	5,237	13,626	6,845	2,424	55,816	11,083
KENT	19,680	3,820	3,811	325	1,315	673	293	6,013	1,227
MONTGOMERY	918,881	231,005	104,950	19,659	53,960	27,891	10,170	231,085	46,021
PRINCE GEORGE'S	838,716	222,112	68,313	18,902	50,222	23,966	7,615	185,238	36,375
WASHINGTON	136,796	31,128	19,224	2,649	8,463	4,287	1,634	36,113	7,194
BALTIMORE CITY	628,670	156,189	78,852	13,292	38,661	18,933	6,936	155,736	31,012
TOTALS	**4,745,496**	**1,192,269**	**530,378**	**101,462**	**285,304**	**142,271**	**50,662**	**1,160,347**	**230,470**

(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
11350 McCormick Road
Hunt Valley, MD 21031
(410) 560-2120 www.marylandlung.org

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ANNE ARUNDEL	40	16	0	21.3	F
BALTIMORE	33	7	0	14.5	F
CALVERT	*	*	*	*	*
CARROLL	21	1	0	7.5	F
CECIL	33	7	1	15.2	F
CHARLES	25	5	0	10.8	F
FREDERICK	29	1	0	10.2	F
HARFORD	38	15	3	22.2	F
KENT	27	5	0	11.5	F
MONTGOMERY	23	2	0	8.7	F
PRINCE GEORGE'S	39	6	1	16.7	F
WASHINGTON	25	0	0	8.3	F
BALTIMORE CITY	12	1	0	4.5	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ANNE ARUNDEL	8	0	0	2.7	D	15.3	FAIL
BALTIMORE	18	1	0	6.5	F	15.2	FAIL
CALVERT	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CARROLL	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CECIL	3	1	0	1.5	C	*	INC
CHARLES	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FREDERICK	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HARFORD	2	1	0	1.2	C	12.8	PASS
KENT	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MONTGOMERY	3	0	0	1.0	C	12.6	PASS
PRINCE GEORGE'S	5	0	0	1.7	C	*	INC
WASHINGTON	6	1	0	2.5	D	13.9	PASS
BALTIMORE CITY	37	0	0	12.3	F	16.6	FAIL

Ozone
- Baltimore City now has sufficient data to receive a grade.

24-Hour Particle Pollution
- Anne Arundel Country's grade improved from an F to a D.
- Prince George's County's grade improved from a D to a C.

Annual Particle Pollution
- There were no changes in grades

(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	229,545	43,936	52,462	3,739	17,757	8,133	3,827	76,557	15,613
BERKSHIRE	133,310	27,876	23,713	2,372	10,342	4,463	1,898	39,701	8,049
BRISTOL	547,008	129,262	74,693	11,000	41,402	16,938	6,421	142,404	28,354
ESSEX	737,848	183,687	99,694	15,632	54,725	22,680	8,720	192,392	38,436
HAMPDEN	461,190	115,111	65,048	9,796	34,358	14,138	5,485	119,954	24,009
HAMPSHIRE	155,101	28,062	18,534	2,388	13,099	4,986	1,712	39,053	7,843
MIDDLESEX	1,471,724	329,288	187,267	28,022	113,226	45,891	16,795	379,189	75,280
NORFOLK	654,331	151,515	93,034	12,894	49,361	20,685	8,065	176,850	35,373
PLYMOUTH	487,521	124,798	57,271	10,620	36,032	14,715	5,413	122,413	24,368
SUFFOLK	680,705	140,579	74,751	11,963	54,594	20,586	6,639	158,729	30,873
WORCESTER	776,610	192,117	97,137	16,349	58,103	23,526	8,664	194,905	38,742
TOTALS	**6,334,893**	**1,466,231**	**843,604**	**124,775**	**482,999**	**196,741**	**73,639**	**1,642,147**	**326,940**

(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
393 Maple Street
Springfield, MA 0115-1954
(413) 737-3506 www.lungma.org

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BARNSTABLE	22	8	0	11.3	F
BERKSHIRE	21	1	0	7.5	F
BRISTOL	23	6	0	10.7	F
ESSEX	23	4	1	10.3	F
HAMPDEN	17	5	0	8.2	F
HAMPSHIRE	18	4	0	8.0	F
MIDDLESEX	16	4	0	7.3	F
NORFOLK	*	*	*	*	*
PLYMOUTH	DNC	DNC	DNC	DNC	DNC
SUFFOLK	16	3	1	7.5	F
WORCESTER	14	1	0	5.2	F

PARTICLE POLLUTION DAYS 2001-2003[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
ESSEX	7	0	0	2.3	D	*	INC
HAMPDEN	17	2	0	6.7	F	*	INC
HAMPSHIRE	*	*	*	*	*	*	INC
MIDDLESEX	*	*	*	*	*	*	INC
NORFOLK	*	*	*	*	*	*	INC
PLYMOUTH	4	0	0	1.3	C	11.2	PASS
SUFFOLK	14	0	0	4.7	F	*	INC
WORCESTER	7	1	0	2.8	D	*	INC

Ozone
- There were no changes in grades or monitors.

24-Hour Particle Pollution
- Hampshire County, Middlesex County, and Norfolk County no longer have sufficient data to grade.
- Plymouth County's grade dropped from a B to a C.
- Essex County's and Worcester County's grades dropped from a C to a D.
- Suffolk County's grade dropped from a D to an F.

Annual Particle Pollution
- There were no changes in grades

(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	110,331	29,589	12,215	2,518	7,432	3,235	1,157	26,407	5,251
ALPENA	30,781	6,785	5,373	577	2,207	1,019	434	9,083	1,843
BAY	109,452	25,734	16,285	2,190	7,688	3,487	1,399	30,226	6,082
BENZIE	17,078	3,744	3,026	319	1,216	564	240	5,032	1,017
BERRIEN	162,766	40,691	23,534	3,463	11,228	5,056	2,010	43,486	8,753
CASS	51,385	12,190	7,206	1,037	3,612	1,631	644	14,030	2,826
CHIPPEWA	38,822	7,647	5,002	651	2,878	1,237	442	10,041	1,991
CLINTON	67,609	17,361	7,558	1,477	4,638	2,036	739	16,794	3,351
GENESEE	442,250	117,994	52,337	10,041	29,790	13,104	4,820	108,619	21,637
GRAND TRAVERSE	82,011	19,030	11,019	1,619	5,788	2,574	981	21,706	4,345
HURON	35,216	7,841	6,949	667	2,503	1,183	532	10,841	2,212
INGHAM	282,030	64,979	27,059	5,530	20,401	8,350	2,671	63,669	12,589
KALAMAZOO	242,110	57,258	27,460	4,873	17,221	7,291	2,534	58,186	11,568
KENT	590,417	163,226	60,387	13,891	39,261	16,781	5,726	133,563	26,357
LEELANAU	21,860	4,808	3,906	409	1,571	739	323	6,703	1,368
LENAWEE	100,786	24,635	12,837	2,096	7,030	3,100	1,164	25,900	5,187

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALLEGAN	30	5	0	12.5	F
ALPENA	DNC	DNC	DNC	DNC	DNC
BAY	DNC	DNC	DNC	DNC	DNC
BENZIE	19	1	0	6.8	F
BERRIEN	26	1	0	9.2	F
CASS	34	2	0	12.3	F
CHIPPEWA	DNC	DNC	DNC	DNC	DNC
CLINTON	12	0	0	4.0	F
GENESEE	26	0	0	8.7	F
GRAND TRAVERSE	DNC	DNC	DNC	DNC	DNC
HURON	14	1	0	5.2	F
INGHAM	12	0	0	4.0	F
KALAMAZOO	18	0	0	6.0	F
KENT	18	1	0	6.5	F
LEELANAU	*	*	*	*	*
LENAWEE	20	1	0	7.2	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALLEGAN	11	0	0	3.7	F	12.5	PASS
ALPENA	*	*	*	*	*	*	INC
BAY	1	0	0	0.3	B	11.2	PASS
BENZIE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BERRIEN	3	0	0	1.0	C	12.7	PASS
CASS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHIPPEWA	2	0	0	0.7	B	8.3	PASS
CLINTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GENESEE	1	0	0	0.3	B	12.6	PASS
GRAND TRAVERSE	*	*	*	*	*	*	INC
HURON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
INGHAM	1	0	0	0.3	B	13.4	PASS
KALAMAZOO	4	0	0	1.3	C	14.7	PASS
KENT	15	0	0	5.0	F	13.8	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	813,948	191,836	109,586	16,325	56,604	25,272	9,569	212,641	42,347
MASON	28,685	6,444	4,839	548	2,043	941	396	8,350	1,691
MISSAUKEE	15,189	3,775	2,270	321	1,049	473	189	4,075	821
MONROE	150,673	38,117	17,158	3,244	10,374	4,543	1,645	37,400	7,450
MUSKEGON	173,090	45,795	21,922	3,897	11,699	5,161	1,937	43,079	8,607
OAKLAND	1,207,869	295,900	138,092	25,181	83,219	36,928	13,417	305,381	60,789
OTTAWA	249,391	67,709	25,933	5,762	16,878	7,131	2,436	56,415	11,197
SAGINAW	209,327	53,881	28,325	4,585	14,320	6,391	2,480	54,299	10,904
SAINT CLAIR	169,063	42,632	20,478	3,628	11,615	5,120	1,890	42,529	8,480
SCHOOLCRAFT	8,772	1,841	1,654	157	635	297	130	2,692	548
WASHTENAW	338,562	73,390	28,084	6,245	24,723	10,057	3,023	74,822	14,651
WAYNE	2,028,778	564,093	237,742	48,004	133,842	58,934	21,568	486,926	96,802
TOTALS	**7,778,251**	**1,988,925**	**918,236**	**169,255**	**531,465**	**232,635**	**84,496**	**1,912,895**	**380,664**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
MACOMB	34	5	0	13.8	F
MASON	20	1	0	7.2	F
MISSAUKEE	4	0	0	1.3	C
MONROE	DNC	DNC	DNC	DNC	DNC
MUSKEGON	17	4	0	7.7	F
OAKLAND	25	1	0	8.8	F
OTTAWA	20	0	0	6.7	F
SAGINAW	DNC	DNC	DNC	DNC	DNC
SAINT CLAIR	20	3	0	8.2	F
SCHOOLCRAFT	*	*	*	*	*
WASHTENAW	21	2	0	8.0	F
WAYNE	26	0	0	8.7	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
MACOMB	3	0	0	1.0	C	13.3	PASS
MASON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MISSAUKEE	*	*	*	*	*	*	INC
MONROE	8	0	0	2.7	D	15.1	FAIL
MUSKEGON	2	0	0	0.7	B	12.3	PASS
OAKLAND	5	0	0	1.7	C	*	INC
OTTAWA	4	0	0	1.3	C	13.4	PASS
SAGINAW	1	0	0	0.3	B	11.3	PASS
SAINT CLAIR	5	1	0	2.2	D	13.9	PASS
SCHOOLCRAFT	0	0	0	0.0	A	*	INC
WASHTENAW	3	0	0	1.0	C	14.6	PASS
WAYNE	42	1	0	14.5	F	19.5	FAIL

Ozone
- Clinton County's and Ingham County's grades dropped from a D to an F.
- Monitors are operating in Leelanau County but not enough data exist to grade the county.

24-Hour Particle Pollution
- Berrien County, Kalamazoo County, Ottawa County, and Washtenaw County's grades all dropped their grades from a B to a C.
- Monroe County and Saint Clair County's grades dropped from a C to a D.
- Sufficient data are now available to grade Chippewa County and Schoolcraft County.
- Alpena County and Grand Traverse County no longer have sufficient data to grade.

Annual Particle Pollution
- There were no changes in grades

(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	314,074	85,862	24,163	7,307	15,692	8,821	2,749	67,773	13,236
CARLTON	33,044	7,540	4,923	642	1,725	1,049	413	8,966	1,800
CROW WING	58,430	13,472	9,973	1,146	3,012	1,884	789	16,625	3,355
DAKOTA	373,311	103,089	29,159	8,773	18,425	10,481	3,300	80,923	15,830
DOUGLAS	34,117	7,344	6,137	625	1,813	1,124	476	9,972	2,014
FREEBORN	31,961	7,008	6,096	596	1,640	1,068	470	9,670	1,966
GOODHUE	45,167	10,794	6,696	919	2,312	1,422	566	12,216	2,461
HENNEPIN	1,121,035	265,374	121,897	22,583	57,630	33,896	11,744	273,007	53,903
ITASCA	44,265	9,707	7,471	826	2,307	1,470	622	13,071	2,655
KANDIYOHI	41,148	10,046	6,330	855	2,115	1,293	524	11,217	2,260
LAKE	11,160	2,241	2,270	191	581	386	174	3,552	725
MILLE LACS	24,317	5,839	3,792	497	1,250	760	305	6,543	1,313
NICOLLET	30,733	6,982	3,364	594	1,736	931	317	7,294	1,458
OLMSTED	131,384	33,449	14,762	2,847	6,617	3,896	1,377	31,648	6,261
RAMSEY	506,355	126,953	60,592	10,804	25,936	15,149	5,461	123,693	24,597
SAINT LOUIS	198,799	40,672	31,378	3,461	10,886	6,557	2,631	56,326	11,401
SCOTT	108,578	31,587	6,440	2,688	5,356	2,861	786	20,760	3,966
STEARNS	137,149	32,429	15,456	2,760	7,616	4,073	1,381	31,913	6,330
WASHINGTON	213,564	58,259	17,215	4,958	10,576	6,101	1,976	47,770	9,407
WRIGHT	102,529	28,927	8,751	2,462	5,117	2,828	893	21,741	4,240
TOTALS	**3,561,120**	**887,574**	**386,865**	**75,534**	**182,342**	**106,050**	**36,954**	**854,680**	**169,178**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ANOKA	2	0	0	0.7	B
CARLTON	0	0	0	0.0	A
CROW WING	DNC	DNC	DNC	DNC	DNC
DAKOTA	1	0	0	0.3	B
DOUGLAS	DNC	DNC	DNC	DNC	DNC
FREEBORN	DNC	DNC	DNC	DNC	DNC
GOODHUE	*	*	*	*	*
HENNEPIN	DNC	DNC	DNC	DNC	DNC
ITASCA	DNC	DNC	DNC	DNC	DNC
KANDIYOHI	DNC	DNC	DNC	DNC	DNC
LAKE	0	0	0	0.0	A
MILLE LACS	1	0	0	0.3	B
NICOLLET	DNC	DNC	DNC	DNC	DNC
OLMSTED	*	*	*	*	*
RAMSEY	DNC	DNC	DNC	DNC	DNC
SAINT LOUIS	0	0	0	0.0	A
SCOTT	*	*	*	*	*
STEARNS	*	*	*	*	*
WASHINGTON	3	0	0	1.0	C
WRIGHT	*	*	*	*	*

PARTICLE POLLUTION DAYS 2001-2003[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
CROW WING	*	*	*	*	*	*	INC
DAKOTA	0	0	0	0.0	A	9.8	PASS
DOUGLAS	*	*	*	*	*	*	INC
FREEBORN	*	*	*	*	*	*	INC
GOODHUE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HENNEPIN	2	0	0	0.7	B	10.8	PASS
ITASCA	*	*	*	*	*	*	INC
KANDIYOHI	*	*	*	*	*	*	INC
LAKE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MILLE LACS	1	0	0	0.3	B	7.1	PASS
NICOLLET	*	*	*	*	*	*	INC
OLMSTED	0	0	0	0.0	A	10.9	PASS
RAMSEY	3	0	0	1.0	C	12.8	PASS
SAINT LOUIS	1	0	0	0.3	B	8.3	PASS
SCOTT	0	0	0	0.0	A	9.9	PASS
STEARNS	0	0	0	0.0	A	9.7	PASS
WASHINGTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WRIGHT	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Mille Lacs County's grade dropped from an A to a B.
- Carlton County now has sufficient data to grade.
- Monitors are now operating in Goodhue County, Olmstead County, Stearns County and Wright County, but haven't collected enough data to grade.

24-Hour Particle Pollution
- Dakota County improved its grade from a B to an A.
- Hennepin County improved its grade from a C to a B.
- Ramsey County improved its grade from a D to a C.
- Mille Lacs County and Saint Louis County's grades dropped from an A to a B.
- Lake County, McLeod County, Otter Tail County, Washington County, and Wright County are no longer being monitored for particle pollution.

Annual Particle Pollution
- There were no changes in grades

(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: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ADAMS	33,233	8,478	5,300	721	1,707	1,044	436	9,204	1,864
ALCORN	34,930	8,222	5,283	700	1,840	1,107	443	9,577	1,922
BOLIVAR	39,235	11,141	4,186	948	1,956	1,107	384	8,815	1,754
DESOTO	124,378	34,265	11,358	2,916	6,227	3,498	1,140	27,374	5,351
FORREST	74,386	17,973	8,433	1,530	3,929	2,176	731	16,990	3,346
GRENADA	22,809	5,971	3,298	508	1,161	693	275	5,953	1,194
HANCOCK	45,145	10,882	6,476	926	2,360	1,421	563	12,243	2,460
HARRISON	189,614	49,245	21,915	4,191	9,707	5,577	1,984	45,251	8,975
HINDS	249,087	68,000	26,915	5,787	12,549	7,176	2,512	57,688	11,457
JACKSON	133,928	35,588	14,605	3,029	6,798	3,940	1,402	32,153	6,384
JONES	65,168	16,365	9,271	1,393	3,373	1,997	779	16,950	3,402
LAUDERDALE	77,706	20,323	11,060	1,729	3,961	2,344	915	19,887	3,989
LEE	77,690	21,206	8,974	1,805	3,898	2,269	824	18,686	3,711
LOWNDES	60,658	16,815	7,102	1,431	3,031	1,752	635	14,347	2,852
MADISON	79,758	22,246	7,965	1,893	3,973	2,257	765	17,933	3,534
PEARL RIVER	50,894	13,055	6,524	1,111	2,615	1,542	583	12,928	2,589
RANKIN	124,695	30,885	12,543	2,628	6,484	3,692	1,248	29,401	5,788
SCOTT	28,450	7,850	3,595	668	1,423	836	315	6,993	1,397
WARREN	48,993	13,573	5,776	1,155	2,447	1,440	535	11,991	2,397
TOTALS	**1,560,757**	**412,083**	**180,579**	**35,069**	**79,439**	**45,868**	**16,469**	**374,364**	**74,366**

(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
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Ridgeland, MS 39158-2178
(601) 206-5810 www.lungusa.org/mississippi

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ADAMS	3	0	0	1.0	C
ALCORN	*	*	*	*	*
BOLIVAR	1	0	0	0.3	B
DESOTO	7	0	0	2.3	D
FORREST	DNC	DNC	DNC	DNC	DNC
GRENADA	DNC	DNC	DNC	DNC	DNC
HANCOCK	9	0	0	3.0	D
HARRISON	7	0	0	2.3	D
HINDS	2	0	0	0.7	B
JACKSON	6	0	0	2.0	C
JONES	DNC	DNC	DNC	DNC	DNC
LAUDERDALE	1	0	0	0.3	B
LEE	2	0	0	0.7	B
LOWNDES	DNC	DNC	DNC	DNC	DNC
MADISON	1	0	0	0.3	B
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 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS	0	0	0	0.0	A	11.1	PASS
ALCORN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BOLIVAR	2	0	0	0.7	B	12.4	PASS
DESOTO	0	0	0	0.0	A	12.5	PASS
FORREST	0	0	0	0.0	A	13.3	PASS
GRENADA	*	*	*	*	*	*	INC
HANCOCK	0	0	0	0.0	A	10.1	PASS
HARRISON	3	0	0	1.0	C	11.4	PASS
HINDS	1	0	0	0.3	B	*	INC
JACKSON	0	0	0	0.0	A	11.7	PASS
JONES	1	0	0	0.3	B	14.4	PASS
LAUDERDALE	1	0	0	0.3	B	*	INC
LEE	1	0	0	0.3	B	12.4	PASS
LOWNDES	3	0	0	1.0	C	13.3	PASS
MADISON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PEARL RIVER	0	0	0	0.0	A	11.7	PASS
RANKIN	1	0	0	0.3	B	13.1	PASS
SCOTT	1	0	0	0.3	B	*	INC
WARREN	1	0	0	0.3	B	12.2	PASS

Ozone
- Jackson County improved its grade from an F to a C.
- Desoto County and Harrison County improved their grades from an F to a D.
- Warren County improved its grade from a B to an A.
- Bolivar County, Hinds County and Lee County improved their grades from a C to a B.

24-Hour Particle Pollution
- Adams County, Forrest County, and Pearl River County improved their grades from a B to an A.
- Bolivar County, Hinds County, and Jones County improved their grades from a C to a B.
- Harrison County's grade dropped from a B to a C.

Annual Particle Pollution
- There were no changes in grades

(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	141,122	31,633	12,285	2,692	9,159	4,125	1,239	30,487	5,970
BUCHANAN	84,909	20,269	12,556	1,725	5,193	2,634	1,027	22,328	4,472
CASS	88,834	23,821	10,436	2,027	5,252	2,616	955	21,588	4,293
CEDAR	13,838	3,224	2,863	274	834	463	214	4,298	879
CLAY	194,247	49,462	20,877	4,209	11,701	5,750	2,006	46,472	9,186
COOPER	17,009	3,721	2,533	317	1,088	536	206	4,490	899
GREENE	245,765	53,516	33,732	4,554	15,618	7,713	2,867	63,777	12,714
HOWELL	37,499	9,254	6,427	788	2,244	1,189	504	10,547	2,135
JACKSON	659,723	169,709	81,078	14,442	39,350	19,719	7,253	163,314	32,454
JASPER	108,112	27,824	14,429	2,368	6,479	3,243	1,224	27,094	5,405
JEFFERSON	206,786	54,225	19,590	4,615	12,477	6,018	2,023	47,845	9,436
MARIES	8,841	2,212	1,371	188	530	278	114	2,436	492
MERCER	3,596	771	746	66	222	123	56	1,129	231
MONROE	9,396	2,337	1,620	199	561	299	128	2,667	541
PLATTE	79,390	19,614	7,228	1,669	4,887	2,370	794	18,864	3,726
SAINT CHARLES	311,531	84,847	29,026	7,220	18,489	8,885	2,953	70,095	13,799
SAINTE GENEVIEVE	18,094	4,409	2,597	375	1,103	565	223	4,833	972
SAINT LOUIS	1,013,123	245,538	141,865	20,895	61,648	31,687	12,407	270,768	54,411
STODDARD	29,626	6,715	5,184	571	1,823	965	409	8,567	1,733
SAINT LOUIS CITY	332,223	85,903	42,132	7,310	19,703	9,835	3,607	80,974	16,069
TOTALS	**3,603,664**	**899,004**	**448,575**	**76,504**	**218,361**	**109,013**	**40,209**	**902,573**	**179,817**

(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 2001-2003[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	2	0	0	0.7	B
CLAY	25	0	0	8.3	F
COOPER	DNC	DNC	DNC	DNC	DNC
GREENE	3	0	0	1.0	C
HOWELL	DNC	DNC	DNC	DNC	DNC
JACKSON	DNC	DNC	DNC	DNC	DNC
JASPER	DNC	DNC	DNC	DNC	DNC
JEFFERSON	22	1	0	7.8	F
MARIES	DNC	DNC	DNC	DNC	DNC
MERCER	DNC	DNC	DNC	DNC	DNC
MONROE	6	0	0	2.0	C
PLATTE	7	0	0	2.3	D
SAINT CHARLES	35	2	0	12.7	F
SAINTE GENEVIEVE	12	0	0	4.0	F
SAINT LOUIS	29	6	0	12.7	F
STODDARD	DNC	DNC	DNC	DNC	DNC
SAINT LOUIS CITY	18	4	0	8.0	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BOONE	*	*	*	*	*	*	INC
BUCHANAN	1	0	0	0.3	B	12.6	PASS
CASS	1	0	0	0.3	B	*	INC
CEDAR	0	0	0	0.0	A	11.6	PASS
CLAY	2	0	0	0.7	B	12.8	PASS
COOPER	*	*	*	*	*	*	INC
GREENE	0	0	0	0.0	A	12.2	PASS
HOWELL	*	*	*	*	*	*	INC
JACKSON	0	1	0	0.5	B	12.3	PASS
JASPER	1	0	0	0.3	B	13.9	PASS
JEFFERSON	4	2	0	2.3	D	14.5	PASS
MARIES	9	2	0	4.0	F	*	INC
MERCER	*	*	*	*	*	*	INC
MONROE	0	0	0	0.0	A	11.3	PASS
PLATTE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SAINT CHARLES	2	0	0	0.7	B	14.3	PASS
SAINTE GENEVIEVE	2	0	0	0.7	B	13.6	PASS
SAINT LOUIS	1	0	0	0.3	B	14.0	PASS
STODDARD	0	0	0	0.0	A	*	INC
SAINT LOUIS CITY	10	2	0	4.3	F	15.2	FAIL

Ozone
- Cedar County improved its grade from an F to a B.
- Platte County improved its grade from an F to a D.
- Cass County improved its grade from a C to a B.

24-Hour Particle Pollution
- Greene County improved its grade from a B to an A
- Cass County's grade dropped from an A to a B.
- Jefferson County's grade dropped from a C to a D.
- Sufficient data now exist to grade Stoddard County and Maries County.

Annual Particle Pollution
- There were no changes in grades

(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	79,561	19,480	11,624	1,658	4,784	2,479	981	21,243	4,272
FLATHEAD	79,485	18,804	10,498	1,600	4,791	2,521	979	21,507	4,334
GALLATIN	73,243	15,181	6,315	1,292	4,649	2,216	678	16,690	3,267
LAKE	27,197	7,063	3,933	601	1,596	845	342	7,328	1,487
LEWIS AND CLARK	57,137	13,324	6,929	1,134	3,454	1,807	681	15,181	3,056
LINCOLN	18,835	4,225	3,104	360	1,148	634	273	5,702	1,167
MISSOULA	98,616	21,148	9,971	1,800	6,171	3,043	1,017	23,982	4,744
RAVALLI	38,662	9,002	5,982	766	2,341	1,262	524	11,126	2,262
ROSEBUD	9,303	2,854	923	243	507	266	98	2,209	447
SANDERS	10,455	2,246	1,889	191	645	361	160	3,301	678
SILVER BOW	33,208	7,426	5,411	632	2,048	1,085	449	9,531	1,928
YELLOWSTONE	133,191	32,112	18,037	2,733	8,029	4,145	1,595	35,100	7,037
TOTALS	**658,893**	**152,865**	**84,616**	**13,010**	**40,163**	**20,664**	**7,777**	**172,900**	**34,679**

(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 2001-2003[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 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
CASCADE	3	0	0	1.0	C	6.0	PASS
FLATHEAD	7	2	0	3.3	F	9.1	PASS
GALLATIN	0	0	0	0.0	A	*	INC
LAKE	3	3	0	2.5	D	9.9	PASS
LEWIS AND CLARK	7	1	0	2.8	D	*	INC
LINCOLN	14	0	0	4.7	F	16.2	FAIL
MISSOULA	7	3	0	3.8	F	*	INC
RAVALLI	2	2	0	1.7	C	*	INC
ROSEBUD	0	0	0	0.0	A	6.8	PASS
SANDERS	1	0	0	0.3	B	6.6	PASS
SILVER BOW	2	0	0	0.7	B	7.8	PASS
YELLOWSTONE	0	0	0	0.0	A	*	INC

Ozone
- There were no changes in ozone grades or monitors.

24-Hour Particle Pollution
- Gallatin County improved its grade from a C to an A.
- Ravalli County improved its grade from an F to a C.
- Silver Bow County improved its grade from a D to a B.
- Flathead County's grade dropped from an A to an F.
- Cascade County's grade dropped from an A to a C
- Lake County's grade dropped from a C to a D.

Annual Particle Pollution
- There were no changes in grades

(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				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
CASS	25,242	6,615	3,084	563	1,332	759	284	6,354	1,270
CEDAR	9,242	2,459	1,896	209	487	295	137	2,734	560
CHERRY	6,053	1,512	1,049	129	326	193	83	1,727	351
DEUEL	2,053	434	451	37	116	71	33	668	137
DOUGLAS	476,703	125,476	51,127	10,678	24,992	13,874	4,809	111,480	22,015
HALL	54,293	14,603	7,474	1,243	2,834	1,627	634	13,850	2,774
LANCASTER	260,995	60,942	26,724	5,186	14,274	7,747	2,547	60,338	11,864
LINCOLN	34,802	8,723	5,292	742	1,870	1,088	443	9,468	1,911
SARPY	132,476	38,470	9,698	3,274	6,669	3,577	1,076	26,946	5,228
SCOTTS BLUFF	36,954	9,240	6,312	786	1,988	1,170	497	10,396	2,105
WASHINGTON	19,690	4,919	2,539	419	1,060	602	227	5,023	1,009
TOTALS	**1,058,503**	**273,393**	**115,646**	**23,266**	**55,948**	**31,003**	**10,770**	**248,984**	**49,224**

(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 2001-2003[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 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
CASS	1	0	0	0.3	B	10.5	PASS
CEDAR	*	*	*	*	*	*	INC
CHERRY	*	*	*	*	*	*	INC
DEUEL	*	*	*	*	*	*	INC
DOUGLAS	3	1	0	1.5	C	10.7	PASS
HALL	0	0	0	0.0	A	8.5	PASS
LANCASTER	1	0	0	0.3	B	9.6	PASS
LINCOLN	0	0	0	0.0	A	7.2	PASS
SARPY	0	0	0	0.0	A	10.3	PASS
SCOTTS BLUFF	0	0	0	0.0	A	6.0	PASS
WASHINGTON	0	0	0	0.0	A	*	INC

Ozone
- There were no changes in ozone grades or monitors.

24-Hour Particle Pollution
- Cass County and Lancaster County's grades dropped from an A to a B.
- Cedar County, Cherry County and Deuel County are no longer monitored for particle pollution.

Annual Particle Pollution
- There were no changes in grades

(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
CLARK	1,576,541	412,060	169,646	35,066	76,163	45,887	15,849	368,641	72,576
DOUGLAS	44,110	9,729	7,307	828	2,276	1,483	634	13,299	2,715
WASHOE	370,853	92,772	40,134	7,895	18,262	11,095	3,899	89,980	17,835
WHITE PINE	8,490	1,914	1,273	163	430	272	108	2,333	470
CARSON CITY	55,311	13,038	8,459	1,110	2,765	1,758	709	15,245	3,068
TOTALS	**2,055,305**	**529,513**	**226,819**	**45,062**	**99,896**	**60,495**	**21,199**	**489,498**	**96,664**

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

HIGH OZONE DAYS 2001-2003[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 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
CLARK	5	1	0	2.2	D	11.0	PASS
DOUGLAS	*	*	*	*	*	*	INC
WASHOE	2	1	0	1.2	C	9.0	PASS
WHITE PINE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CARSON CITY	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Clark County's grade for dropped from a D to an F.
- Washoe County's grade for dropped from an A to a B.

24-Hour Particle Pollution
- Clark County's grade dropped from a C to a D.
- Douglas County is no longer monitored for pollution.

Annual Particle Pollution
- There were no changes in grades

(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	60,356	13,128	9,055	1,117	3,972	1,969	788	17,079	3,435
CARROLL	46,134	9,564	8,432	814	3,034	1,578	689	14,320	2,912
CHESHIRE	75,965	16,588	10,191	1,412	5,036	2,424	918	20,222	4,076
COOS	33,019	6,982	6,021	594	2,165	1,116	485	10,086	2,048
GRAFTON	84,038	17,015	11,482	1,448	5,690	2,729	1,030	22,655	4,576
HILLSBOROUGH	394,663	100,179	41,850	8,525	25,160	11,772	4,135	95,691	18,952
MERRIMACK	143,622	33,830	17,256	2,879	9,335	4,450	1,633	36,861	7,359
ROCKINGHAM	290,104	72,653	30,237	6,183	18,507	8,797	3,132	72,258	14,364
STRAFFORD	117,740	26,724	13,111	2,274	7,825	3,575	1,225	28,325	5,624
SULLIVAN	42,048	9,568	6,539	814	2,723	1,365	559	11,973	2,413
TOTALS	**1,287,689**	**306,231**	**154,174**	**26,060**	**83,447**	**39,775**	**14,594**	**329,470**	**65,759**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BELKNAP	5	0	0	1.7	C
CARROLL	*	*	*	*	*
CHESHIRE	2	0	0	0.7	B
COOS	3	2	0	2.0	C
GRAFTON	1	0	0	0.3	B
HILLSBOROUGH	11	5	0	6.2	F
MERRIMACK	5	0	0	1.7	C
ROCKINGHAM	18	2	0	7.0	F
STRAFFORD	6	1	0	2.5	D
SULLIVAN	3	0	0	1.0	C

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BELKNAP	1	0	0	0.3	B	*	INC
CARROLL	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHESHIRE	0	1	0	0.5	B	11.8	PASS
COOS	1	0	0	0.3	B	9.6	PASS
GRAFTON	*	*	*	*	*	*	INC
HILLSBOROUGH	0	1	0	0.5	B	*	INC
MERRIMACK	1	0	0	0.3	B	9.6	PASS
ROCKINGHAM	1	0	0	0.3	B	*	INC
STRAFFORD	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SULLIVAN	0	1	0	0.5	B	10.0	PASS

Ozone
- Cheshire County improved its grade from a C to a B.
- Belknap County now has sufficient data to grade ozone.
- Carroll County is no longer monitored for ozone.

24-Hour Particle Pollution
- There were no changes to particle pollution grades or monitors.

Annual Particle Pollution
- There were no changes in grades

(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	263,410	65,995	35,426	5,616	14,038	8,028	3,059	67,534	13,495
BERGEN	897,569	205,154	134,438	17,459	48,874	28,760	11,494	248,806	49,990
CAMDEN	513,909	135,238	63,189	11,509	27,019	15,326	5,695	127,460	25,431
CUMBERLAND	149,306	37,711	18,948	3,209	7,956	4,477	1,650	37,026	7,355
ESSEX	796,313	210,987	92,147	17,955	41,797	23,381	8,403	191,188	37,933
GLOUCESTER	266,962	66,579	30,806	5,666	14,376	8,042	2,894	65,806	13,102
HUDSON	607,419	139,912	67,732	11,907	33,266	18,215	6,169	144,751	28,337
HUNTERDON	128,265	31,351	14,129	2,668	6,910	3,981	1,464	33,243	6,655
MERCER	361,981	86,550	44,368	7,365	19,782	11,052	4,022	90,567	18,078
MIDDLESEX	780,995	186,361	93,346	15,859	42,420	23,663	8,450	192,729	38,185
MONMOUTH	632,274	160,934	78,955	13,695	33,525	19,318	7,312	162,692	32,582
MORRIS	483,150	119,543	58,088	10,173	25,800	14,867	5,545	124,523	24,892
OCEAN	546,081	125,072	116,484	10,644	29,402	18,074	8,290	166,962	33,906
PASSAIC	498,357	133,175	58,728	11,333	26,106	14,594	5,276	119,556	23,737
UNION	529,360	134,178	69,455	11,419	28,048	16,043	6,065	134,666	26,854
WARREN	109,219	27,268	13,682	2,321	5,820	3,332	1,246	27,858	5,562
TOTALS	**7,564,570**	**1,866,008**	**989,921**	**158,798**	**405,139**	**231,153**	**87,034**	**1,935,367**	**386,094**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ATLANTIC	22	2	0	8.3	F
BERGEN	26	5	0	11.2	F
CAMDEN	46	16	1	24.0	F
CUMBERLAND	33	5	0	13.5	F
ESSEX	8	1	0	3.2	D
GLOUCESTER	30	13	2	17.8	F
HUDSON	12	2	0	5.0	F
HUNTERDON	32	5	0	13.2	F
MERCER	35	11	0	17.2	F
MIDDLESEX	38	8	0	16.7	F
MONMOUTH	27	5	2	12.8	F
MORRIS	35	8	1	16.3	F
OCEAN	43	12	4	23.0	F
PASSAIC	22	1	0	7.8	F
UNION	DNC	DNC	DNC	DNC	DNC
WARREN	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ATLANTIC	4	1	0	1.8	C	*	INC
BERGEN	3	1	0	1.5	C	*	INC
CAMDEN	7	1	0	2.8	D	*	INC
CUMBERLAND	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ESSEX	3	1	0	1.5	C	*	INC
GLOUCESTER	4	1	0	1.8	C	*	INC
HUDSON	7	1	0	2.8	D	14.8	PASS
HUNTERDON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MERCER	4	1	0	1.8	C	14.0	PASS
MIDDLESEX	7	1	0	2.8	D	12.7	PASS
MONMOUTH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MORRIS	7	1	0	2.8	D	*	INC
OCEAN	4	1	0	1.8	C	*	INC
PASSAIC	3	1	0	1.5	C	*	INC
UNION	24	1	0	8.5	F	15.7	FAIL
WARREN	3	1	0	1.5	C	13.5	PASS

Ozone
- Essex County now has sufficient data to grade ozone pollution.

24-Hour Particle Pollution
- Essex County and Gloucester County improved their grades from a D to a C.
- Passaic County's grade dropped from a B to a C.
- Atlantic County now has sufficient data to grade particle pollution.

Annual Particle Pollution
- Hudson County improved its grade 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.

NEW MEXICO

AT-RISK GROUPS[1]

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
BERNALILLO	581,442	144,988	67,484	12,338	29,556	17,506	6,302	143,427	28,510
CHAVES	60,591	16,695	8,944	1,421	3,000	1,816	732	15,608	3,158
DONA ANA	182,165	52,018	20,528	4,427	8,899	5,128	1,806	41,110	8,169
EDDY	51,470	14,108	7,357	1,201	2,550	1,556	627	13,451	2,718
GRANT	29,818	7,254	5,399	617	1,542	973	430	8,822	1,804
LEA	55,504	15,919	6,741	1,355	2,701	1,591	588	13,106	2,622
SANDOVAL	98,786	27,456	10,725	2,337	4,832	2,866	1,028	23,416	4,668
SAN JUAN	122,272	37,549	11,367	3,195	5,783	3,328	1,122	26,236	5,204
SANTA FE	136,423	31,031	15,606	2,641	7,146	4,321	1,590	35,980	7,214
VALENCIA	67,839	19,416	7,166	1,652	3,283	1,940	690	15,779	3,144
TOTALS	**1,386,310**	**366,434**	**161,317**	**31,184**	**69,292**	**41,025**	**14,915**	**336,935**	**67,211**

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

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HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BERNALILLO	4	0	0	1.3	C
CHAVES	DNC	DNC	DNC	DNC	DNC
DONA ANA	5	0	0	1.7	C
EDDY	0	0	0	0.0	A
GRANT	DNC	DNC	DNC	DNC	DNC
LEA	DNC	DNC	DNC	DNC	DNC
SANDOVAL	0	0	0	0.0	A
SAN JUAN	0	0	0	0.0	A
SANTA FE	DNC	DNC	DNC	DNC	DNC
VALENCIA	0	0	0	0.0	A

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BERNALILLO	0	0	0	0.0	A	6.6	PASS
CHAVES	0	0	0	0.0	A	6.7	PASS
DONA ANA	4	0	0	1.3	C	11.5	PASS
EDDY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GRANT	0	0	0	0.0	A	6.3	PASS
LEA	0	0	0	0.0	A	6.7	PASS
SANDOVAL	1	0	0	0.3	B	10.2	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
- San Juan County improved its grade from a B to an A.
- Doña Ana County improved its grade from a D to a C.
- Bernalillo County's grade dropped from a B to a C.

24-Hour Particle Pollution
- There were no changes to particle pollution grades or monitors.

Annual Particle Pollution
- There were no changes in grades

(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: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ALBANY	297,845	63,383	41,796	5,394	18,028	9,513	3,607	79,413	15,934
BRONX	1,363,198	398,624	137,053	33,923	74,590	37,475	12,572	295,378	57,960
BROOME	199,360	42,798	32,658	3,642	11,960	6,486	2,635	56,017	11,325
CHAUTAUQUA	137,645	31,022	21,604	2,640	8,162	4,420	1,782	38,108	7,698
CHEMUNG	90,413	20,574	14,025	1,751	5,333	2,893	1,162	24,982	5,028
DUTCHESS	290,885	67,875	34,893	5,776	17,234	8,953	3,237	73,307	14,616
ERIE	941,293	214,319	147,580	18,239	55,400	30,159	12,179	261,229	52,586
ESSEX	38,992	7,928	6,294	675	2,363	1,291	523	11,227	2,257
HAMILTON	5,278	931	1,058	79	328	190	86	1,758	359
HERKIMER	63,704	14,056	10,464	1,196	3,785	2,081	860	18,277	3,687
JEFFERSON	114,651	28,462	13,179	2,422	6,663	3,360	1,155	26,746	5,258
KINGS	2,472,523	641,968	293,886	54,631	140,808	72,803	26,120	594,812	117,631
MADISON	70,182	15,701	8,853	1,336	4,232	2,200	810	17,976	3,631
MONROE	736,738	177,694	96,384	15,122	42,994	22,734	8,573	190,091	38,067
NASSAU	1,339,463	313,905	200,222	26,713	78,237	42,687	17,129	369,834	74,422

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

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HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALBANY	13	1	0	4.8	F
BRONX	9	1	0	3.5	F
BROOME	DNC	DNC	DNC	DNC	DNC
CHAUTAUQUA	39	3	0	14.5	F
CHEMUNG	7	0	0	2.3	D
DUTCHESS	11	4	1	6.3	F
ERIE	31	7	0	13.8	F
ESSEX	24	1	0	8.5	F
HAMILTON	8	0	0	2.7	D
HERKIMER	3	0	0	1.0	C
JEFFERSON	31	8	0	14.3	F
KINGS	DNC	DNC	DNC	DNC	DNC
MADISON	9	0	0	3.0	D
MONROE	16	2	0	6.3	F
NASSAU	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALBANY	4	1	0	1.8	C	*	INC
BRONX	24	1	0	8.5	F	15.8	FAIL
BROOME	2	0	0	0.7	B	*	INC
CHAUTAUQUA	3	0	0	1.0	C	10.7	PASS
CHEMUNG	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DUTCHESS	1	0	0	0.3	B	*	INC
ERIE	9	0	0	3.0	D	14.0	PASS
ESSEX	1	1	0	0.8	B	*	INC
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	5	1	0	2.2	D	14.9	PASS
MADISON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MONROE	5	1	0	2.2	D	11.4	PASS
NASSAU	3	1	0	1.5	C	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.

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	1,564,798	276,547	194,576	23,534	98,617	50,526	17,474	406,506	79,642
NIAGARA	218,150	49,943	33,157	4,250	12,855	6,980	2,797	60,297	12,137
ONEIDA	234,373	52,071	37,475	4,431	13,893	7,554	3,057	65,414	13,171
ONONDAGA	460,517	111,529	62,723	9,491	26,788	14,220	5,434	119,498	23,964
ORANGE	363,153	97,610	36,237	8,307	20,617	10,494	3,586	83,795	16,573
OSWEGO	123,495	29,754	14,089	2,532	7,281	3,744	1,330	30,314	6,049
PUTNAM	99,550	24,424	9,833	2,078	5,831	3,028	1,058	24,659	4,896
QUEENS	2,225,486	495,635	288,717	42,179	132,445	69,174	25,266	571,487	112,995
RENSSELAER	154,007	34,761	20,375	2,958	9,185	4,842	1,818	40,386	8,084
RICHMOND	459,737	110,380	53,798	9,393	26,930	14,025	5,051	115,251	22,859
SAINT LAWRENCE	111,655	23,717	14,838	2,018	6,824	3,527	1,298	28,789	5,791
SARATOGA	209,818	48,006	24,556	4,085	12,485	6,517	2,351	53,589	10,656
SCHENECTADY	147,289	34,018	23,660	2,895	8,613	4,723	1,934	41,218	8,309
STEUBEN	99,012	23,466	14,844	1,997	5,772	3,146	1,266	27,282	5,492
SUFFOLK	1,468,037	364,637	176,032	31,031	84,906	44,577	16,341	369,325	73,492
ULSTER	181,111	39,298	23,897	3,344	10,921	5,784	2,177	48,469	9,699
WAYNE	93,728	23,557	11,698	2,005	5,400	2,870	1,082	24,117	4,827
WESTCHESTER	940,302	229,081	130,086	19,495	54,329	29,209	11,330	248,777	49,792
TOTALS	**17,316,388**	**4,107,674**	**2,230,540**	**349,562**	**1,013,809**	**532,185**	**197,080**	**4,418,328**	**878,887**

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

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HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
NEW YORK	*	*	*	*	*
NIAGARA	29	3	0	11.2	F
ONEIDA	10	0	0	3.3	F
ONONDAGA	15	0	0	5.0	F
ORANGE	19	1	0	6.8	F
OSWEGO	*	*	*	*	*
PUTNAM	26	5	0	11.2	F
QUEENS	14	0	0	4.7	F
RENSSELAER	*	*	*	*	*
RICHMOND	28	6	0	12.3	F
SAINT LAWRENCE	DNC	DNC	DNC	DNC	DNC
SARATOGA	18	0	0	6.0	F
SCHENECTADY	5	1	0	2.2	D
STEUBEN	DNC	DNC	DNC	DNC	DNC
SUFFOLK	23	9	1	12.8	F
ULSTER	7	0	0	2.3	D
WAYNE	17	0	0	5.7	F
WESTCHESTER	24	3	0	9.5	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
NEW YORK	13	3	0	5.8	F	17.7	FAIL
NIAGARA	3	0	0	1.0	C	12.0	PASS
ONEIDA	2	0	0	0.7	B	*	INC
ONONDAGA	4	0	0	1.3	C	*	INC
ORANGE	1	1	0	0.8	B	11.6	PASS
OSWEGO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PUTNAM	DNC	DNC	DNC	DNC	DNC	DNC	DNC
QUEENS	15	1	0	5.5	F	*	INC
RENSSELAER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
RICHMOND	5	1	0	2.2	D	12.2	PASS
SAINT LAWRENCE	4	0	0	1.3	C	8.7	PASS
SARATOGA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SCHENECTADY	1	1	0	0.8	B	*	INC
STEUBEN	10	0	0	3.3	F	10.0	PASS
SUFFOLK	3	1	0	1.5	C	12.3	PASS
ULSTER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WAYNE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WESTCHESTER	3	1	0	1.5	C	12.5	PASS

Ozone
- Bronx County and Oneida County's grade dropped from a D to an F.
- Schenectady County and Ulster County's grade dropped from a C to a D.
- Herkimer County's grade dropped from a B to a C.

24-Hour Particle Pollution
- Monroe County and Richmond County's grades dropped from a C to a D.
- Westchester County's grade dropped from a B to a C.
- Steuben County's grade dropped from a D to an F.

Annual Particle Pollution
- There were no changes in grades

(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
ALAMANCE	136,773	33,444	18,960	2,846	7,276	4,186	1,596	35,105	7,017
ALEXANDER	34,784	8,421	4,357	717	1,842	1,071	399	8,954	1,782
AVERY	17,700	3,351	2,830	285	1,015	585	230	4,980	998
BUNCOMBE	212,672	47,016	32,472	4,001	11,687	6,864	2,741	59,306	11,906
CABARRUS	142,740	37,570	15,718	3,197	7,312	4,163	1,457	33,700	6,641
CALDWELL	78,728	18,686	10,797	1,590	4,210	2,464	951	20,986	4,191
CAMDEN	7,863	1,847	1,004	157	421	243	90	2,032	404
CASWELL	23,632	5,366	3,198	457	1,281	751	288	6,383	1,276
CATAWBA	146,971	36,151	18,351	3,076	7,747	4,475	1,654	37,223	7,396
CHATHAM	55,238	12,549	7,850	1,068	2,996	1,734	664	14,680	2,919
CUMBERLAND	303,953	88,657	25,472	7,545	14,936	8,176	2,523	61,871	12,033
DAVIDSON	152,178	37,027	19,684	3,151	8,057	4,681	1,761	39,316	7,829
DAVIE	37,151	8,981	5,135	764	1,978	1,161	452	9,920	1,985
DUPLIN	51,181	13,488	6,671	1,148	2,647	1,522	572	12,734	2,533
DURHAM	236,781	57,016	22,214	4,852	12,422	6,881	2,177	52,829	10,289
EDGECOMBE	54,895	14,936	6,632	1,271	2,800	1,632	613	13,685	2,737
FORSYTH	317,810	78,398	40,148	6,672	16,760	9,647	3,566	79,970	15,922
FRANKLIN	52,006	13,000	5,510	1,106	2,709	1,535	525	12,297	2,418
GASTON	193,097	48,150	24,436	4,098	10,135	5,878	2,196	49,192	9,788

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

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HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALAMANCE	DNC	DNC	DNC	DNC	DNC
ALEXANDER	23	0	0	7.7	F
AVERY	4	0	0	1.3	C
BUNCOMBE	8	0	0	2.7	D
CABARRUS	DNC	DNC	DNC	DNC	DNC
CALDWELL	15	0	0	5.0	F
CAMDEN	*	*	*	*	*
CASWELL	23	1	0	8.2	F
CATAWBA	DNC	DNC	DNC	DNC	DNC
CHATHAM	14	0	0	4.7	F
CUMBERLAND	25	1	0	8.8	F
DAVIDSON	DNC	DNC	DNC	DNC	DNC
DAVIE	35	2	0	12.7	F
DUPLIN	4	0	0	1.3	C
DURHAM	23	0	0	7.7	F
EDGECOMBE	24	1	0	8.5	F
FORSYTH	34	2	0	12.3	F
FRANKLIN	25	2	0	9.3	F
GASTON	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALAMANCE	2	0	0	0.7	B	13.7	PASS
ALEXANDER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
AVERY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BUNCOMBE	3	1	0	1.5	C	12.9	PASS
CABARRUS	2	0	0	0.7	B	14.5	PASS
CALDWELL	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CAMDEN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CASWELL	3	0	0	1.0	C	13.3	PASS
CATAWBA	2	0	0	0.7	B	15.5	FAIL
CHATHAM	0	0	0	0.0	A	12.2	PASS
CUMBERLAND	1	0	0	0.3	B	13.9	PASS
DAVIDSON	4	0	0	1.3	C	15.8	FAIL
DAVIE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DUPLIN	1	0	0	0.3	B	11.9	PASS
DURHAM	4	0	0	1.3	C	13.9	PASS
EDGECOMBE	1	0	0	0.3	B	*	INC
FORSYTH	7	0	0	2.3	D	14.6	PASS
FRANKLIN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GASTON	2	0	0	0.7	B	14.0	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
GRAHAM	7,994	1,719	1,481	146	448	268	117	2,426	492
GRANVILLE	51,852	12,592	5,737	1,072	2,729	1,553	540	12,535	2,470
GUILFORD	433,789	105,197	51,471	8,952	22,952	13,097	4,685	106,659	21,174
HAYWOOD	55,442	11,446	10,869	974	3,143	1,892	841	17,293	3,509
JACKSON	34,304	6,491	4,760	552	1,974	1,116	413	9,116	1,837
JOHNSTON	136,802	36,548	12,813	3,110	6,917	3,887	1,267	30,474	5,939
LENOIR	58,549	14,894	8,880	1,267	3,088	1,830	749	16,031	3,231
LINCOLN	67,275	16,964	7,834	1,444	3,504	2,030	739	16,800	3,336
MC DOWELL	42,867	9,868	6,230	840	2,321	1,359	533	11,657	2,330
MARTIN	25,070	6,253	3,955	532	1,334	794	330	7,009	1,418
MECKLENBURG	752,366	195,373	63,701	16,626	38,274	21,344	6,650	163,635	31,776
MITCHELL	15,831	3,271	2,986	278	896	539	236	4,884	991
MONTGOMERY	27,306	6,868	3,726	584	1,438	839	325	7,133	1,427
NASH	89,732	23,040	11,469	1,961	4,674	2,719	1,028	22,863	4,566
NEW HANOVER	168,088	35,523	22,092	3,023	9,293	5,320	1,953	43,963	8,731
NORTHAMPTON	21,782	5,166	3,929	440	1,186	712	311	6,441	1,309
ONSLOW	147,524	41,646	10,622	3,544	7,432	3,833	1,030	26,759	5,134
ORANGE	118,183	24,260	10,687	2,065	6,541	3,599	1,120	27,075	5,355
PASQUOTANK	36,071	8,876	4,873	755	1,921	1,098	414	9,147	1,828
PERSON	36,864	8,939	5,058	761	1,959	1,148	445	9,796	1,959
PITT	138,690	33,099	13,349	2,817	7,370	4,033	1,277	30,715	6,021
RANDOLPH	135,151	34,300	16,651	2,919	7,044	4,083	1,514	34,056	6,771
ROBESON	125,756	36,274	12,722	3,087	6,238	3,525	1,210	28,170	5,561
ROCKINGHAM	92,590	21,835	13,932	1,858	4,987	2,942	1,181	25,542	5,126

(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
P.O. Box 27985
Raleigh, NC 27611-7985
(919) 832-8326 www.lungnc.org

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
GRAHAM	*	*	*	*	*
GRANVILLE	23	3	0	9.2	F
GUILFORD	22	4	0	9.3	F
HAYWOOD	20	0	0	6.7	F
JACKSON	7	0	0	2.3	D
JOHNSTON	20	1	0	7.2	F
LENOIR	9	0	0	3.0	D
LINCOLN	35	0	0	11.7	F
MC DOWELL	DNC	DNC	DNC	DNC	DNC
MARTIN	10	0	0	3.3	F
MECKLENBURG	35	8	0	15.7	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	16	0	0	5.3	F
ONSLOW	DNC	DNC	DNC	DNC	DNC
ORANGE	DNC	DNC	DNC	DNC	DNC
PASQUOTANK	DNC	DNC	DNC	DNC	DNC
PERSON	21	3	0	8.5	F
PITT	16	0	0	5.3	F
RANDOLPH	19	0	0	6.3	F
ROBESON	DNC	DNC	DNC	DNC	DNC
ROCKINGHAM	24	3	0	9.5	F

PARTICLE POLLUTION DAYS 2001-2003[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	9	0	0	3.0	D	14.0	PASS
HAYWOOD	2	0	0	0.7	B	13.4	PASS
JACKSON	2	0	0	0.7	B	12.6	PASS
JOHNSTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LENOIR	1	0	0	0.3	B	11.4	PASS
LINCOLN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MC DOWELL	1	0	0	0.3	B	14.1	PASS
MARTIN	*	*	*	*	*	*	INC
MECKLENBURG	8	0	0	2.7	D	14.9	PASS
MITCHELL	0	0	0	0.0	A	13.3	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	11.1	PASS
ORANGE	0	0	0	0.0	A	13.1	PASS
PASQUOTANK	2	0	0	0.7	B	*	INC
PERSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PITT	1	0	0	0.3	B	12.3	PASS
RANDOLPH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ROBESON	0	0	0	0.0	A	12.8	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	133,931	33,054	18,709	2,813	7,103	4,110	1,583	34,792	6,948
SWAIN	13,126	3,156	2,157	269	708	420	175	3,703	749
UNION	145,986	41,094	12,628	3,497	7,239	4,053	1,297	31,458	6,136
WAKE	695,681	179,635	51,722	15,287	35,365	19,576	5,820	146,791	28,417
WATAUGA	42,808	6,588	4,987	561	2,572	1,391	454	10,529	2,109
WAYNE	113,104	30,037	13,627	2,556	5,816	3,335	1,220	27,529	5,469
YANCEY	18,069	3,838	3,358	327	1,015	611	268	5,549	1,126
TOTALS	**6,238,736**	**1,561,898**	**688,454**	**132,918**	**325,712**	**184,705**	**64,180**	**1,485,693**	**293,309**

(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
P.O. Box 27985
Raleigh, NC 27611-7985
(919) 832-8326 www.lungnc.org

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ROWAN	52	9	0	21.8	F
SWAIN	0	0	0	0.0	A
UNION	18	3	0	7.5	F
WAKE	27	7	0	12.5	F
WATAUGA	DNC	DNC	DNC	DNC	DNC
WAYNE	DNC	DNC	DNC	DNC	DNC
YANCEY	10	0	0	3.3	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ROWAN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SWAIN	3	0	0	1.0	C	12.6	PASS
UNION	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WAKE	5	0	0	1.7	C	13.8	PASS
WATAUGA	1	0	0	0.3	B	*	INC
WAYNE	1	0	0	0.3	B	13.6	PASS
YANCEY	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Buncombe County and Jackson County improved their grades from an F to a D.
- New Hanover County improved its grade from a C to a B.
- Randolph County now has sufficient data to grade ozone pollution.
- Monitors are now operating in Graham County, but haven't collected enough data to grade the county yet.

24-Hour Particle Pollution
- Mitchell County improved its grade from a B to an A.
- Catawba County, Cumberland County, and McDowell County improved their grades from a C to a B.
- Guilford County and Mecklenburg County improved their grades from an F to a D.
- Edgecombe County and Lenoir County's grades dropped from an A to a B.
- Swain County's grade dropped from a B to a C.
- Watauga County now has sufficient data to grade.
- Monitors are now collecting data in Martin County and Nash County, but haven't collected enough to grade the counties.

Annual Particle Pollution
- Grades in Cabarrus County, Forsyth County, Mc Dowell County, and Mecklenburg County 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.

NORTH DAKOTA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
BILLINGS	850	186	120	16	46	28	11	246	50
BURKE	2,098	391	503	33	120	77	38	746	154
BURLEIGH	71,693	16,214	9,145	1,380	3,850	2,231	819	18,419	3,667
CASS	127,138	28,701	12,424	2,442	6,791	3,778	1,206	29,110	5,680
DUNN	3,539	876	585	75	185	115	50	1,033	211
GRAND FORKS	64,736	14,362	6,320	1,222	3,512	1,915	600	14,433	2,835
MC KENZIE	5,615	1,529	889	130	285	175	75	1,570	320
MERCER	8,449	2,106	1,206	179	439	269	110	2,357	480
OLIVER	1,905	441	283	38	101	64	27	575	119
STARK	22,131	5,148	3,600	438	1,192	706	289	6,116	1,238
STEELE	2,081	482	418	41	112	70	33	655	135
TOTALS	**310,235**	**70,436**	**35,493**	**5,994**	**16,633**	**9,428**	**3,258**	**75,260**	**14,889**

(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 2001-2003[1]

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

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BILLINGS	0	0	0	0.0	A	4.7	PASS
BURKE	0	0	0	0.0	A	5.9	PASS
BURLEIGH	0	0	0	0.0	A	6.8	PASS
CASS	1	0	0	0.3	B	7.9	PASS
DUNN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GRAND FORKS	*	*	*	*	*	*	INC
MC KENZIE	*	*	*	*	*	*	INC
MERCER	0	0	0	0.0	A	6.3	PASS
OLIVER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
STARK	*	*	*	*	*	*	INC
STEELE	*	*	*	*	*	*	INC

Ozone
- McKenzie County now has sufficient data to grade.
- Steele County is no longer monitored for ozone.

24-Hour Particle Pollution
- Cass County's grade dropped from an A to a B.

Annual Particle Pollution
- There were no changes in grades

(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	108,241	27,400	15,083	2,332	5,705	3,312	1,287	28,078	5,640
ASHTABULA	103,120	25,736	14,983	2,190	5,505	3,207	1,277	27,630	5,557
ATHENS	64,380	11,230	5,839	956	3,535	1,966	566	13,868	2,755
BUTLER	343,207	85,977	36,761	7,317	18,077	10,167	3,513	81,193	16,123
CLARK	143,351	35,047	21,196	2,982	7,698	4,504	1,807	38,902	7,847
CLERMONT	185,799	49,123	18,449	4,180	9,720	5,419	1,857	43,482	8,590
CLINTON	41,756	10,615	5,058	903	2,197	1,253	459	10,311	2,058
CUYAHOGA	1,363,888	334,954	208,278	28,505	73,134	42,681	17,220	369,870	74,387
DELAWARE	132,797	34,354	10,634	2,924	6,940	3,781	1,169	28,876	5,626
FRANKLIN	1,088,944	275,519	105,652	23,447	57,220	31,568	10,350	246,894	48,380
GALLIA	31,398	7,427	4,440	632	1,699	987	385	8,408	1,690
GEAUGA	93,941	24,466	12,082	2,082	5,016	2,906	1,140	24,967	5,041
GREENE	151,257	33,877	18,151	2,883	8,222	4,702	1,690	38,137	7,645
HAMILTON	823,472	206,939	110,200	17,611	43,630	25,080	9,549	210,802	42,155
JEFFERSON	71,888	14,795	13,388	1,259	4,065	2,443	1,063	22,026	4,478
KNOX	56,930	13,392	7,763	1,140	3,052	1,768	671	14,724	2,964
LAKE	228,878	53,056	33,027	4,515	12,584	7,297	2,889	62,859	12,632
LAWRENCE	62,550	14,557	9,046	1,239	3,408	1,978	777	16,934	3,396

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALLEN	17	1	0	6.2	F
ASHTABULA	37	7	0	15.8	F
ATHENS	DNC	DNC	DNC	DNC	DNC
BUTLER	29	6	0	12.7	F
CLARK	27	3	0	10.5	F
CLERMONT	17	2	0	6.7	F
CLINTON	30	3	0	11.5	F
CUYAHOGA	31	4	0	12.3	F
DELAWARE	26	2	0	9.7	F
FRANKLIN	36	3	1	14.2	F
GALLIA	DNC	DNC	DNC	DNC	DNC
GEAUGA	44	11	0	20.2	F
GREENE	21	0	0	7.0	F
HAMILTON	29	3	0	11.2	F
JEFFERSON	21	1	0	7.5	F
KNOX	26	1	0	9.2	F
LAKE	34	5	0	13.8	F
LAWRENCE	22	1	0	7.8	F

PARTICLE POLLUTION DAYS 2001-2003[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	1	0	0	0.3	B	12.5	PASS
BUTLER	21	0	0	7.0	F	16.2	FAIL
CLARK	2	0	0	0.7	B	14.7	PASS
CLERMONT	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CLINTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CUYAHOGA	50	2	0	17.7	F	18.3	FAIL
DELAWARE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FRANKLIN	24	0	0	8.0	F	16.7	FAIL
GALLIA	*	*	*	*	*	*	INC
GEAUGA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GREENE	*	*	*	*	*	*	INC
HAMILTON	34	0	0	11.3	F	17.8	FAIL
JEFFERSON	35	0	0	11.7	F	17.8	FAIL
KNOX	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LAKE	6	0	0	2.0	C	13.4	PASS
LAWRENCE	6	0	0	2.0	C	15.8	FAIL

(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	150,634	37,581	18,149	3,198	8,037	4,583	1,691	37,998	7,593
LORAIN	291,164	73,751	36,753	6,276	15,445	8,846	3,322	74,000	14,794
LUCAS	454,216	116,824	58,013	9,942	23,852	13,654	5,111	113,790	22,716
MADISON	40,624	9,639	4,644	820	2,191	1,232	435	9,985	1,979
MAHONING	251,660	57,873	43,896	4,925	13,778	8,214	3,505	73,312	14,849
MEDINA	161,641	41,529	17,420	3,534	8,589	4,836	1,725	39,596	7,875
MIAMI	100,230	24,715	13,540	2,103	5,394	3,116	1,211	26,563	5,334
MONTGOMERY	552,187	133,983	77,123	11,402	29,622	17,128	6,634	145,377	29,124
PORTAGE	154,870	34,695	17,363	2,953	8,407	4,750	1,646	37,818	7,541
PREBLE	42,417	10,167	5,794	865	2,299	1,328	514	11,284	2,266
SCIOTO	77,453	18,186	11,666	1,548	4,178	2,436	964	20,867	4,186
STARK	377,519	90,941	57,396	7,739	20,407	11,954	4,842	103,868	20,946
SUMMIT	546,774	133,636	76,443	11,372	29,406	16,982	6,615	144,799	29,013
TRUMBULL	221,785	51,741	35,455	4,403	12,138	7,151	2,956	62,891	12,701
WARREN	181,743	47,654	16,801	4,055	9,489	5,224	1,710	41,033	8,029
WASHINGTON	62,505	13,852	9,659	1,179	3,462	2,030	821	17,617	3,556
WOOD	123,020	27,105	13,692	2,307	6,647	3,764	1,285	29,537	5,907
TOTALS	**8,886,239**	**2,182,336**	**1,163,837**	**185,718**	**474,748**	**272,247**	**102,656**	**2,278,296**	**455,373**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
LICKING	20	1	0	7.2	F
LORAIN	26	1	0	9.2	F
LUCAS	30	0	0	10.0	F
MADISON	23	1	0	8.2	F
MAHONING	20	3	0	8.2	F
MEDINA	27	0	0	9.0	F
MIAMI	22	2	0	8.3	F
MONTGOMERY	20	3	0	8.2	F
PORTAGE	28	2	0	10.3	F
PREBLE	14	0	0	4.7	F
SCIOTO	DNC	DNC	DNC	DNC	DNC
STARK	32	2	0	11.7	F
SUMMIT	31	5	0	12.8	F
TRUMBULL	37	4	0	14.3	F
WARREN	29	2	0	10.7	F
WASHINGTON	21	2	1	8.7	F
WOOD	26	1	0	9.2	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
LICKING	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LORAIN	4	0	0	1.3	C	13.9	PASS
LUCAS	15	0	0	5.0	F	15.1	FAIL
MADISON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MAHONING	23	0	0	7.7	F	15.2	FAIL
MEDINA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MIAMI	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MONTGOMERY	23	0	0	7.7	F	15.2	FAIL
PORTAGE	5	0	0	1.7	C	14.2	PASS
PREBLE	1	0	0	0.3	B	*	INC
SCIOTO	11	1	0	4.2	F	17.2	FAIL
STARK	10	0	0	3.3	F	17.3	FAIL
SUMMIT	27	0	0	9.0	F	16.6	FAIL
TRUMBULL	22	0	0	7.3	F	15.0	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
- There were no changes in ozone grades or monitors.

24-Hour Particle Pollution
- Lawrence County improved its grade from a D to a C.
- Monitors are now collecting data in Greene County, but haven't collected enough to grade.

Annual Particle Pollution
- Grades in Portage County and Trumbull County 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.

OKLAHOMA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ADAIR	21,614	6,399	2,558	545	1,156	612	226	5,054	1,008
CADDO	30,070	8,156	4,383	694	1,654	904	361	7,762	1,563
CANADIAN	92,904	23,888	9,265	2,033	5,281	2,750	949	22,111	4,386
CARTER	46,396	11,651	7,347	992	2,611	1,454	600	12,742	2,572
CHEROKEE	43,783	10,965	5,229	933	2,515	1,301	464	10,470	2,092
CLEVELAND	219,966	50,310	19,502	4,281	13,077	6,529	2,053	49,862	9,788
COMANCHE	113,890	31,331	11,561	2,666	6,327	3,181	1,048	24,643	4,853
COTTON	6,582	1,601	1,086	136	374	209	87	1,839	371
CREEK	68,794	17,758	9,297	1,511	3,865	2,108	823	17,995	3,619
CUSTER	24,962	5,697	3,514	485	1,473	772	290	6,382	1,277
DEWEY	4,549	950	940	81	268	157	72	1,456	298
ELLIS	3,996	813	885	69	236	141	67	1,335	274
GARFIELD	57,105	14,011	9,153	1,192	3,239	1,795	737	15,684	3,160
JEFFERSON	6,535	1,487	1,274	127	376	216	96	1,970	401
JOHNSTON	10,522	2,521	1,658	215	605	334	136	2,901	587
KAY	47,260	11,944	7,918	1,016	2,652	1,490	631	13,194	2,677
LATIMER	10,575	2,529	1,711	215	609	334	137	2,877	585
LINCOLN	32,262	8,284	4,494	705	1,815	994	393	8,524	1,717

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ADAIR	*	*	*	*	*
CADDO	DNC	DNC	DNC	DNC	DNC
CANADIAN	*	*	*	*	*
CARTER	7	0	0	2.3	D
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	*	*	*	*	*
ELLIS	DNC	DNC	DNC	DNC	DNC
GARFIELD	DNC	DNC	DNC	DNC	DNC
JEFFERSON	*	*	*	*	*
JOHNSTON	*	*	*	*	*
KAY	1	0	0	0.3	B
LATIMER	*	*	*	*	*
LINCOLN	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2001-2003[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	8.7	PASS
CANADIAN	0	0	0	0.0	A	8.9	PASS
CARTER	0	0	0	0.0	A	10.2	PASS
CHEROKEE	0	0	0	0.0	A	11.6	PASS
CLEVELAND	DNC	DNC	DNC	DNC	DNC	DNC	DNC
COMANCHE	0	0	0	0.0	A	*	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
ELLIS	*	*	*	*	*	*	INC
GARFIELD	1	0	0	0.3	B	9.9	PASS
JEFFERSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JOHNSTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KAY	2	0	0	0.7	B	10.8	PASS
LATIMER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LINCOLN	0	0	0	0.0	A	10.1	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
MC CLAIN	28,595	7,118	3,598	606	1,632	877	330	7,346	1,472
MARSHALL	13,652	3,124	2,565	266	786	450	198	4,075	827
MAYES	38,870	9,930	5,861	845	2,182	1,204	488	10,450	2,106
MUSKOGEE	70,255	17,659	10,524	1,503	3,969	2,171	868	18,671	3,757
OKLAHOMA	676,066	172,747	81,566	14,701	38,223	20,114	7,286	164,940	32,738
OTTAWA	32,761	8,137	5,507	692	1,851	1,033	434	9,090	1,844
PAWNEE	16,789	4,198	2,391	357	952	527	211	4,558	921
PAYNE	71,059	13,153	7,503	1,119	4,495	2,172	669	16,096	3,159
PITTSBURG	44,168	9,879	7,488	841	2,573	1,439	601	12,692	2,564
SEMINOLE	24,489	6,297	3,939	536	1,371	765	319	6,730	1,363
TULSA	570,313	149,226	66,886	12,699	31,979	16,873	6,106	138,540	27,512
TOTALS	**2,428,782**	**611,763**	**299,603**	**52,061**	**138,146**	**72,906**	**26,680**	**599,989**	**119,491**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
MC CLAIN	3	0	0	1.0	C
MARSHALL	*	*	*	*	*
MAYES	DNC	DNC	DNC	DNC	DNC
MUSKOGEE	DNC	DNC	DNC	DNC	DNC
OKLAHOMA	4	0	0	1.3	C
OTTAWA	2	0	0	0.7	B
PAWNEE	DNC	DNC	DNC	DNC	DNC
PAYNE	DNC	DNC	DNC	DNC	DNC
PITTSBURG	*	*	*	*	*
SEMINOLE	DNC	DNC	DNC	DNC	DNC
TULSA	21	1	0	7.5	F

PARTICLE POLLUTION DAYS 2001-2003[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	0	0	0	0.0	A	12.1	PASS
MUSKOGEE	0	0	0	0.0	A	12.2	PASS
OKLAHOMA	1	0	0	0.3	B	10.5	PASS
OTTAWA	0	0	0	0.0	A	11.6	PASS
PAWNEE	0	0	0	0.0	A	*	INC
PAYNE	0	0	0	0.0	A	*	INC
PITTSBURG	1	0	0	0.3	B	11.6	PASS
SEMINOLE	0	0	0	0.0	A	9.5	PASS
TULSA	1	0	0	0.3	B	12.0	PASS

Ozone
- Cherokee County improved its grade from a D to a B.
- Cleveland County, Comanche County, and Kay County improved their grades from a C to a B.
- Oklahoma County improved its grade from a D to a C.
- Sufficient data are now available to grade Carter County and Ottawa County.
- Jefferson and Marshall Counties no longer have sufficient data to grade.
- Monitors are now collecting data on ozone in Cotton County, Creek County, and Johnston County, but haven't collected enough yet to grade them.
- Monitors are no longer collecting data in Love County.

24-Hour Particle Pollution
- Kay County's grade dropped from an A to a B.
- Custer County no longer has sufficient data to grade.
- Monitors are no longer collecting data on particle pollution in Pottawatomie County.

Annual Particle Pollution
- There were no changes in grades

(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	79,335	15,631	8,402	1,330	6,075	2,476	817	19,184	3,809
CLACKAMAS	357,435	87,582	40,947	7,453	24,873	11,018	4,053	91,684	18,336
COLUMBIA	46,261	11,660	5,281	992	3,192	1,412	520	11,733	2,349
DESCHUTES	129,492	30,174	17,191	2,568	9,161	4,067	1,550	34,347	6,873
HARNEY	7,184	1,808	1,166	154	485	232	100	2,091	426
JACKSON	190,077	43,991	30,251	3,744	13,418	6,130	2,522	53,654	10,851
JOSEPHINE	79,030	17,202	16,006	1,464	5,602	2,698	1,232	24,974	5,103
KLAMATH	64,769	16,231	9,906	1,381	4,452	2,039	837	17,841	3,611
LAKE	7,440	1,657	1,374	141	523	252	112	2,299	471
LANE	330,527	71,413	44,675	6,077	24,088	10,535	3,972	88,181	17,636
LINN	106,121	26,131	15,496	2,224	7,375	3,311	1,317	28,502	5,730
MARION	296,995	79,516	35,566	6,767	20,331	8,679	3,144	71,043	14,112
MULTNOMAH	677,813	152,002	72,094	12,935	48,949	20,712	7,049	165,584	32,573
UMATILLA	72,008	19,387	8,807	1,650	4,896	2,126	788	17,632	3,519
UNION	24,561	5,706	3,652	486	1,746	785	315	6,768	1,370
WASCO	23,591	5,743	3,930	489	1,628	761	324	6,789	1,380
WASHINGTON	479,496	126,922	41,928	10,801	32,975	13,661	4,380	106,203	20,743
TOTALS	**2,972,135**	**712,756**	**356,672**	**60,656**	**209,769**	**90,894**	**33,032**	**748,509**	**148,892**

(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
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HIGH OZONE DAYS 2001-2003[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 2001-2003[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	6.1	PASS
DESCHUTES	2	1	0	1.2	C	*	INC
HARNEY	0	0	0	0.0	A	*	INC
JACKSON	21	1	0	7.5	F	11.4	PASS
JOSEPHINE	4	0	0	1.3	C	*	INC
KLAMATH	24	11	2	14.8	F	10.5	PASS
LAKE	5	2	0	2.7	D	*	INC
LANE	58	7	0	22.8	F	13.4	PASS
LINN	0	0	0	0.0	A	8.1	PASS
MARION	1	0	0	0.3	B	*	INC
MULTNOMAH	5	0	0	1.7	C	8.5	PASS
UMATILLA	6	0	0	2.0	C	*	INC
UNION	1	0	0	0.3	B	6.7	PASS
WASCO	1	0	0	0.3	B	7.1	PASS
WASHINGTON	2	1	0	1.2	C	9.3	PASS

Ozone
- Monitors are now collecting ozone data in Multnomah County, but haven't collected enough to grade.

24-Hour Particle Pollution
- Lake County improved its grade from an F to a D.
- Linn County improved its grade from a B to an A.
- Multnomah County improved its grade from an F to a C.
- Umatilla County improved its grade from a D to a C.
- Benton County no longer has sufficient data to grade.

Annual Particle Pollution
- There were no changes in grades

(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]

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
ADAMS	96,456	22,411	13,291	1,907	6,174	3,016	1,151	25,358	5,078
ALLEGHENY	1,261,303	270,004	217,804	22,977	82,896	41,689	17,481	368,535	74,455
ARMSTRONG	71,659	15,312	12,842	1,303	4,718	2,394	1,025	21,444	4,340
BEAVER	178,697	38,589	32,785	3,284	11,739	5,975	2,589	53,812	10,910
BERKS	385,307	91,777	55,732	7,810	24,483	12,038	4,707	102,518	20,562
BLAIR	127,175	27,514	21,987	2,341	8,343	4,200	1,767	37,198	7,522
BUCKS	613,110	147,975	78,537	12,593	38,812	19,090	7,252	161,332	32,272
CAMBRIA	149,453	29,948	28,803	2,549	10,017	5,100	2,231	46,019	9,354
CENTRE	141,636	23,785	14,722	2,024	9,765	4,415	1,344	32,484	6,387
CHESTER	457,393	113,346	54,488	9,646	28,680	13,963	5,143	115,901	23,141
CLEARFIELD	82,874	17,549	14,166	1,493	5,460	2,740	1,142	24,183	4,874
CUMBERLAND	219,892	45,732	32,924	3,892	14,544	7,160	2,805	60,875	12,260
DAUPHIN	253,388	60,605	35,964	5,157	16,091	7,971	3,135	68,513	13,728
DELAWARE	554,432	133,673	82,585	11,376	35,116	17,334	6,877	148,408	29,871
ERIE	279,966	66,832	39,838	5,687	17,794	8,725	3,389	73,849	14,847

(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
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HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ADAMS	*	*	*	*	*
ALLEGHENY	41	6	0	16.7	F
ARMSTRONG	32	4	0	12.7	F
BEAVER	38	5	0	15.2	F
BERKS	25	2	0	9.3	F
BLAIR	14	1	0	5.2	F
BUCKS	29	13	0	16.2	F
CAMBRIA	13	0	0	4.3	F
CENTRE	19	3	0	7.8	F
CHESTER	41	10	1	19.3	F
CLEARFIELD	25	0	0	8.3	F
CUMBERLAND	DNC	DNC	DNC	DNC	DNC
DAUPHIN	27	3	0	10.5	F
DELAWARE	26	7	0	12.2	F
ERIE	24	1	0	8.5	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS	15	0	0	5.0	F	13.4	PASS
ALLEGHENY	106	15	0	42.8	F	21.2	FAIL
ARMSTRONG	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BEAVER	7	0	0	2.3	D	16.0	FAIL
BERKS	13	1	0	4.8	F	16.4	FAIL
BLAIR	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BUCKS	6	1	0	2.5	D	14.3	PASS
CAMBRIA	7	0	0	2.3	D	15.8	FAIL
CENTRE	14	1	0	5.2	F	*	INC
CHESTER	*	*	*	*	*	*	INC
CLEARFIELD	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CUMBERLAND	24	3	0	9.5	F	*	INC
DAUPHIN	24	3	0	9.5	F	15.7	FAIL
DELAWARE	5	1	0	2.2	D	15.4	FAIL
ERIE	12	0	0	4.0	F	*	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	133,155	30,705	22,040	2,613	8,561	4,287	1,777	37,707	7,596
GREENE	40,398	8,381	6,048	713	2,673	1,319	518	11,281	2,263
LACKAWANNA	210,458	44,241	39,558	3,765	13,916	7,047	3,050	63,179	12,814
LANCASTER	482,775	124,674	68,520	10,610	29,877	14,702	5,768	125,415	25,165
LAWRENCE	93,408	20,715	17,590	1,763	6,094	3,106	1,362	28,070	5,705
LEHIGH	320,517	74,634	49,538	6,351	20,525	10,194	4,105	88,281	17,747
LUZERNE	313,528	63,119	59,591	5,371	20,963	10,638	4,614	95,665	19,383
LYCOMING	118,438	26,125	19,166	2,223	7,721	3,847	1,572	33,517	6,760
MERCER	119,895	26,920	21,310	2,291	7,787	3,931	1,678	34,964	7,094
MONTGOMERY	770,747	180,761	114,157	15,383	49,222	24,407	9,696	210,392	42,205
NORTHAMPTON	278,169	61,564	42,058	5,239	18,090	8,939	3,543	76,603	15,417
PERRY	44,188	10,698	5,433	910	2,796	1,373	516	11,550	2,309
PHILADELPHIA	1,479,339	371,643	199,941	31,627	92,158	44,636	16,821	372,307	74,207
TIOGA	41,557	9,127	6,801	777	2,714	1,353	555	11,764	2,382
WASHINGTON	204,286	43,348	35,349	3,689	13,477	6,812	2,877	60,537	12,253
WESTMORELAND	368,224	76,388	66,993	6,501	24,460	12,470	5,387	112,292	22,773
YORK	394,919	92,804	53,761	7,898	25,204	12,403	4,775	105,327	21,078
TOTALS	**10,286,742**	**2,370,899**	**1,564,322**	**201,763**	**660,870**	**327,274**	**130,652**	**2,819,280**	**566,752**

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

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(717) 541-5864 www.lunginfo.org

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
FRANKLIN	45	2	0	16.0	F
GREENE	22	2	0	8.3	F
LACKAWANNA	22	1	0	7.8	F
LANCASTER	34	4	0	13.3	F
LAWRENCE	8	1	0	3.2	D
LEHIGH	27	4	0	11.0	F
LUZERNE	18	2	0	7.0	F
LYCOMING	12	1	0	4.5	F
MERCER	35	6	0	14.7	F
MONTGOMERY	32	4	0	12.7	F
NORTHAMPTON	29	5	0	12.2	F
PERRY	20	1	0	7.2	F
PHILADELPHIA	34	9	0	15.8	F
TIOGA	13	1	0	4.8	F
WASHINGTON	33	2	0	12.0	F
WESTMORELAND	17	2	0	6.7	F
YORK	21	3	0	8.5	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
FRANKLIN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GREENE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LACKAWANNA	17	1	0	6.2	F	12.5	PASS
LANCASTER	15	2	0	6.0	F	17.0	FAIL
LAWRENCE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LEHIGH	16	4	0	7.3	F	14.4	PASS
LUZERNE	9	1	0	3.5	F	12.9	PASS
LYCOMING	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MERCER	15	0	0	5.0	F	14.3	PASS
MONTGOMERY	6	1	0	2.5	D	14.1	PASS
NORTHAMPTON	26	3	0	10.2	F	14.6	PASS
PERRY	3	1	0	1.5	C	13.0	PASS
PHILADELPHIA	28	2	0	10.3	F	16.2	FAIL
TIOGA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WASHINGTON	22	1	0	7.8	F	15.5	FAIL
WESTMORELAND	15	0	0	5.0	F	15.5	FAIL
YORK	14	3	0	6.2	F	17.0	FAIL

Ozone
- There were no changes to ozone monitors or grades in Pennsylvania.

24-Hour Particle Pollution
- Bucks County, Cambria County, and Montgomery County's grades dropped from a C to a D.
- Luzerne County's grade dropped from a D to an F.

Annual Particle Pollution
- There were no changes in grades

(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	171,297	37,885	25,018	3,224	12,668	5,516	2,172	47,553	9,504
PROVIDENCE	639,444	148,958	87,945	12,676	47,452	19,705	7,381	163,999	32,608
WASHINGTON	128,502	27,821	16,808	2,368	9,804	4,100	1,537	34,170	6,856
TOTALS	**939,243**	**214,664**	**129,771**	**18,268**	**69,924**	**29,321**	**11,090**	**245,722**	**48,968**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
KENT	18	8	0	10.0	F
PROVIDENCE	19	4	0	8.3	F
WASHINGTON	23	4	0	9.7	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
KENT	1	1	0	0.8	B	*	INC
PROVIDENCE	7	1	0	2.8	D	11.6	PASS
WASHINGTON	*	*	*	*	*	*	INC

Ozone
- There were no changes to ozone monitors or grades in Rhode Island.

24-Hour Particle Pollution
- Providence County's grade dropped from a C to D.
- Washington County no longer has sufficient data to grade.

Annual Particle Pollution
- There were no changes in grades

(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	26,381	6,405	3,809	545	1,237	826	327	7,079	1,427
AIKEN	146,736	36,859	19,589	3,137	6,783	4,500	1,727	38,120	7,624
ANDERSON	171,510	41,653	23,489	3,545	8,043	5,334	2,063	45,419	9,084
BARNWELL	23,369	6,320	2,976	538	1,052	698	267	5,900	1,181
BEAUFORT	132,889	31,426	21,731	2,674	6,240	4,149	1,671	35,534	7,154
BERKELEY	146,449	39,841	13,102	3,390	6,374	4,152	1,353	32,265	6,368
CHARLESTON	321,014	76,378	38,061	6,500	14,842	9,733	3,467	79,114	15,690
CHEROKEE	53,555	13,758	6,553	1,171	2,445	1,613	598	13,443	2,677
CHESTER	33,906	8,984	4,264	765	1,541	1,023	390	8,659	1,732
CHESTERFIELD	43,251	11,319	5,226	963	1,966	1,300	485	10,879	2,170
COLLETON	39,173	10,455	5,075	890	1,777	1,184	457	10,067	2,021
DARLINGTON	67,956	17,512	8,416	1,490	3,115	2,068	782	17,435	3,486
EDGEFIELD	24,703	5,734	2,654	488	1,151	754	262	6,086	1,204
FLORENCE	128,335	32,415	15,568	2,759	5,878	3,887	1,437	32,305	6,444

(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 Southeast Region
1817 Gadsden Street
Columbia, SC 29201-2392
(803) 779-5864 www.lungsc.org

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ABBEVILLE	12	0	0	4.0	F
AIKEN	11	0	0	3.7	F
ANDERSON	28	0	0	9.3	F
BARNWELL	8	0	0	2.7	D
BEAUFORT	DNC	DNC	DNC	DNC	DNC
BERKELEY	0	0	0	0.0	A
CHARLESTON	1	0	0	0.3	B
CHEROKEE	14	1	0	5.2	F
CHESTER	18	0	0	6.0	F
CHESTERFIELD	*	*	*	*	*
COLLETON	4	0	0	1.3	C
DARLINGTON	11	0	0	3.7	F
EDGEFIELD	8	0	0	2.7	D
FLORENCE	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ABBEVILLE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
AIKEN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
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	*	*	*	*	*	*	INC
CHARLESTON	2	0	0	0.7	B	11.5	PASS
CHEROKEE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHESTER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHESTERFIELD	1	0	0	0.3	B	12.1	PASS
COLLETON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DARLINGTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
EDGEFIELD	0	0	0	0.0	A	12.4	PASS
FLORENCE	0	0	0	0.0	A	12.5	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
GEORGETOWN	58,924	14,168	9,619	1,206	2,816	1,893	794	16,796	3,396
GREENVILLE	395,357	96,641	46,683	8,224	18,256	11,983	4,326	98,384	19,537
GREENWOOD	67,503	16,960	9,294	1,443	3,107	2,058	791	17,381	3,474
HORRY	210,757	45,024	32,894	3,832	10,296	6,832	2,721	58,946	11,795
LEXINGTON	226,528	57,298	24,148	4,876	10,348	6,791	2,402	55,483	10,994
OCONEE	68,523	15,196	11,376	1,293	3,354	2,249	938	19,915	4,016
ORANGEBURG	91,028	22,801	12,352	1,940	4,179	2,786	1,070	23,421	4,712
PICKENS	112,859	24,649	13,465	2,098	5,280	3,471	1,210	27,650	5,502
RICHLAND	332,104	80,213	32,124	6,826	15,006	9,755	3,173	75,424	14,880
SPARTANBURG	261,281	63,828	32,818	5,432	12,128	8,002	2,976	66,754	13,296
UNION	29,105	6,825	4,711	581	1,400	938	390	8,289	1,670
WILLIAMSBURG	36,008	9,855	4,778	839	1,623	1,087	428	9,327	1,880
YORK	178,070	45,427	18,606	3,866	8,044	5,264	1,822	42,340	8,380
TOTALS	**3,427,274**	**837,944**	**423,381**	**71,311**	**158,281**	**104,330**	**38,327**	**862,415**	**171,794**

(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 Southeast Region
1817 Gadsden Street
Columbia, SC 29201-2392
(803) 779-5864 www.lungsc.org

HIGH OZONE DAYS 2001-2003[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	7	0	0	2.3	D
ORANGEBURG	DNC	DNC	DNC	DNC	DNC
PICKENS	18	0	0	6.0	F
RICHLAND	27	0	0	9.0	F
SPARTANBURG	30	1	0	10.5	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 2001-2003[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	5	0	0	1.7	C	14.4	PASS
GREENWOOD	0	0	0	0.0	A	13.1	PASS
HORRY	0	0	0	0.0	A	11.2	PASS
LEXINGTON	1	0	0	0.3	B	13.5	PASS
OCONEE	2	0	0	0.7	B	10.6	PASS
ORANGEBURG	*	*	*	*	*	*	INC
PICKENS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
RICHLAND	1	0	0	0.3	B	12.8	PASS
SPARTANBURG	4	0	0	1.3	C	13.7	PASS
UNION	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WILLIAMSBURG	DNC	DNC	DNC	DNC	DNC	DNC	DNC
YORK	*	*	*	*	*	*	INC

Ozone
- Berkeley County improved its grade from a B to an A.
- Charleston County improved its grade from a C to a B.
- Barnwell County and Edgefield County improved their grades from an F to a D.
- Ozone data are no longer collected in Greenville County.

24-Hour Particle Pollution
- Florence County improved its grade from a B to an A.
- Charleston County improved its grade from a C to a B.
- Particle pollution data are no longer collected in Colleton County.

Annual Particle Pollution
- Greenville 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.

SOUTH DAKOTA

AT-RISK GROUPS[1]

County	Total Population	Under 18	65 & Over	Lung Diseases				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
BROOKINGS	28,265	5,609	3,098	477	1,782	859	274	6,422	1,278
BROWN	34,666	7,843	5,749	667	1,973	1,116	459	9,720	1,965
CODINGTON	25,929	6,537	3,791	556	1,426	793	311	6,763	1,353
JACKSON	2,853	970	332	83	140	77	29	638	129
MEADE	24,715	6,773	2,638	576	1,306	710	247	5,711	1,130
MINNEHAHA	154,617	39,723	17,306	3,380	8,277	4,530	1,579	36,444	7,193
PENNINGTON	91,881	23,550	11,380	2,004	4,969	2,754	1,017	22,802	4,544
TOTALS	**362,926**	**91,005**	**44,294**	**7,743**	**19,873**	**10,839**	**3,916**	**88,500**	**17,592**

(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 2001-2003[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	*	*	*	*	*

PARTICLE POLLUTION DAYS 2001-2003[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	8.3	PASS
CODINGTON	*	*	*	*	*	*	INC
JACKSON	0	0	0	0.0	A	*	INC
MEADE	0	0	0	0.0	A	6.3	PASS
MINNEHAHA	0	0	0	0.0	A	10.0	PASS
PENNINGTON	0	0	0	0.0	A	7.5	PASS

Ozone
- Ozone data are now collected in Jackson County, but insufficient data exist to grade.

24-Hour Particle Pollution
- Sufficient data are now available to grade Meade County an A.
- Particle pollution data are now collected in Codington County.

Annual Particle Pollution
- There were no changes in grades

(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		
ANDERSON	71,904	15,831	11,894	1,347	4,443	2,364	985	20,877	4,218
BLOUNT	111,510	24,504	15,706	2,085	6,904	3,573	1,381	30,376	6,082
DAVIDSON	569,842	128,687	63,474	10,951	35,082	17,326	5,935	138,257	27,246
DYER	37,308	9,301	4,952	792	2,223	1,146	439	9,685	1,939
HAMBLEN	58,851	13,463	8,146	1,146	3,603	1,856	712	15,720	3,140
HAMILTON	309,510	69,911	43,123	5,949	19,018	9,834	3,796	83,418	16,725
HAYWOOD	19,626	5,144	2,624	438	1,150	593	228	5,019	1,005
HUMPHREYS	18,123	4,161	2,796	354	1,107	584	238	5,102	1,028
JEFFERSON	46,919	10,324	6,323	879	2,907	1,480	554	12,327	2,462
KNOX	392,995	85,868	49,864	7,307	24,408	12,328	4,496	101,407	20,187
LAWRENCE	40,704	10,310	5,981	877	2,411	1,251	496	10,748	2,154
LOUDON	41,624	8,855	7,187	754	2,595	1,387	586	12,351	2,495
MC MINN	50,632	11,767	7,245	1,001	3,084	1,601	627	13,693	2,745
MADISON	93,873	23,450	11,389	1,996	5,599	2,820	1,024	23,059	4,600
MAURY	73,198	18,417	8,724	1,567	4,352	2,213	811	18,321	3,647

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ANDERSON	24	1	0	8.5	F
BLOUNT	42	3	0	15.5	F
DAVIDSON	3	0	0	1.0	C
DYER	*	*	*	*	*
HAMBLEN	*	*	*	*	*
HAMILTON	26	2	0	9.7	F
HAYWOOD	8	0	0	2.7	D
HUMPHREYS	*	*	*	*	*
JEFFERSON	35	1	0	12.2	F
KNOX	33	0	0	11.0	F
LAWRENCE	3	0	0	1.0	C
LOUDON	DNC	DNC	DNC	DNC	DNC
MC MINN	DNC	DNC	DNC	DNC	DNC
MADISON	DNC	DNC	DNC	DNC	DNC
MAURY	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ANDERSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BLOUNT	5	0	0	1.7	C	14.1	PASS
DAVIDSON	1	0	0	0.3	B	*	INC
DYER	0	0	0	0.0	A	12.0	PASS
HAMBLEN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HAMILTON	3	0	0	1.0	C	16.1	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	12	3	0	5.5	F	16.4	FAIL
LAWRENCE	2	1	0	1.2	C	12.0	PASS
LOUDON	*	*	*	*	*	*	INC
MC MINN	2	0	0	0.7	B	*	INC
MADISON	1	0	0	0.3	B	*	INC
MAURY	0	0	0	0.0	A	12.7	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
MEIGS	11,430	2,754	1,411	234	689	354	132	2,964	593
MONTGOMERY	141,064	40,790	11,545	3,471	7,990	3,791	1,152	28,557	5,526
OBION	32,386	7,409	4,987	631	1,980	1,044	423	9,093	1,832
PUTNAM	64,973	13,933	8,706	1,186	4,060	2,033	742	16,614	3,309
ROANE	52,424	11,180	8,541	951	3,268	1,743	723	15,385	3,110
RUTHERFORD	202,310	51,754	15,471	4,404	12,007	5,674	1,673	42,190	8,162
SEVIER	75,503	16,673	10,103	1,419	4,669	2,412	919	20,405	4,078
SHELBY	906,178	249,534	88,547	21,235	52,228	25,913	8,812	206,576	40,803
SULLIVAN	153,050	32,334	25,127	2,752	9,563	5,089	2,109	44,888	9,061
SUMNER	138,752	34,267	15,290	2,916	8,304	4,191	1,489	34,193	6,792
WILLIAMSON	141,301	38,171	11,407	3,248	8,202	4,102	1,357	32,508	6,440
WILSON	95,366	23,913	9,400	2,035	5,681	2,847	978	22,900	4,535
TOTALS	**3,951,356**	**962,705**	**459,963**	**81,925**	**237,527**	**119,549**	**42,817**	**976,633**	**193,914**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
MEIGS	32	1	0	11.2	F
MONTGOMERY	*	*	*	*	*
OBION	*	*	*	*	*
PUTNAM	11	0	0	3.7	F
ROANE	DNC	DNC	DNC	DNC	DNC
RUTHERFORD	9	0	0	3.0	D
SEVIER	56	1	0	19.2	F
SHELBY	23	1	0	8.2	F
SULLIVAN	22	0	0	7.3	F
SUMNER	20	0	0	6.7	F
WILLIAMSON	13	0	0	4.3	F
WILSON	7	1	0	2.8	D

PARTICLE POLLUTION DAYS 2001-2003[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	13.3	PASS
OBION	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PUTNAM	2	0	0	0.7	B	13.3	PASS
ROANE	3	0	0	1.0	C	14.1	PASS
RUTHERFORD	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SEVIER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SHELBY	5	0	0	1.7	C	14.0	PASS
SULLIVAN	2	0	0	0.7	B	14.5	PASS
SUMNER	0	0	0	0.0	A	13.5	PASS
WILLIAMSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WILSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Haywood County, Rutherford County, and Wilson County improved their ozone grades from an F to a D.
- Ozone data are now collected in Humphreys County.
- Ozone data are no longer collected in Dickson County and Roane County.

24-Hour Particle Pollution
- Davidson County and Sullivan County improved their grade from a D to a B.
- Blount County and Hamilton County improved their grades from a D to a C.
- McMinn County improved its grade from a C to a B.
- Shelby County improved its grade from an F to a C.
- Lawrence County's grade dropped from a B to a C.
- Particle pollution data are now collected in Loudon County.

Annual Particle Pollution
- Grades in Roane County and Sullivan County 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.

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	1,471,644	417,631	151,643	35,540	72,195	41,308	14,101	327,928	64,764
BOWIE	89,699	21,931	12,018	1,866	4,632	2,755	1,046	23,159	4,622
BRAZORIA	263,149	74,204	22,608	6,315	12,895	7,353	2,379	57,259	11,243
BREWSTER	9,247	2,002	1,313	170	500	294	112	2,451	494
CALDWELL	35,572	9,947	4,019	846	1,754	1,013	358	8,194	1,621
CAMERON	363,092	124,308	39,670	10,579	16,423	9,412	3,362	75,985	15,075
COLLIN	597,147	169,737	33,294	14,445	29,032	16,026	4,439	117,118	22,470
DALLAS	2,284,096	654,613	184,439	55,708	111,264	62,147	19,148	472,484	91,773
DENTON	510,795	141,003	25,682	11,999	25,239	13,637	3,567	96,864	18,459
ECTOR	122,692	36,868	13,581	3,137	5,889	3,424	1,230	27,880	5,549
ELLIS	124,411	35,834	11,063	3,049	6,064	3,465	1,141	27,139	5,354
EL PASO	705,436	225,974	70,994	19,230	32,900	18,811	6,477	149,628	29,613
GALVESTON	266,775	70,207	28,817	5,975	13,407	7,874	2,795	64,154	12,745
GREGG	113,941	30,390	14,961	2,586	5,727	3,385	1,282	28,294	5,660
HARRIS	3,596,086	1,049,367	268,963	89,301	173,795	97,493	29,821	740,457	144,095
HARRISON	62,708	16,093	7,997	1,370	3,199	1,899	717	15,827	3,185
HAYS	114,193	27,837	8,730	2,369	5,978	3,228	933	23,500	4,575
HIDALGO	635,540	226,717	59,895	19,294	28,169	15,713	5,217	122,227	23,988
HOOD	45,046	10,288	8,016	876	2,372	1,479	636	13,261	2,688
HUNT	81,024	20,905	9,849	1,779	4,124	2,416	884	19,848	3,964
JEFF DAVIS	2,236	513	379	44	117	75	33	678	139

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BEXAR	22	3	0	8.8	F
BOWIE	DNC	DNC	DNC	DNC	DNC
BRAZORIA	26	5	0	11.2	F
BREWSTER	0	0	0	0.0	A
CALDWELL	DNC	DNC	DNC	DNC	DNC
CAMERON	0	0	0	0.0	A
COLLIN	25	1	0	8.8	F
DALLAS	23	4	1	10.3	F
DENTON	36	4	0	14.0	F
ECTOR	DNC	DNC	DNC	DNC	DNC
ELLIS	15	0	0	5.0	F
EL PASO	9	1	0	3.5	F
GALVESTON	21	1	1	8.2	F
GREGG	6	0	0	2.0	C
HARRIS	65	27	7	39.8	F
HARRISON	11	0	0	3.7	F
HAYS	*	*	*	*	*
HIDALGO	3	0	0	1.0	C
HOOD	11	0	0	3.7	F
HUNT	*	*	*	*	*
JEFF DAVIS	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BEXAR	1	1	0	0.8	B	*	INC
BOWIE	0	0	0	0.0	A	13.9	PASS
BRAZORIA	1	0	0	0.3	B	*	INC
BREWSTER	0	0	0	0.0	A	*	INC
CALDWELL	2	0	0	0.7	B	*	INC
CAMERON	2	0	0	0.7	B	10.1	PASS
COLLIN	1	0	0	0.3	B	*	INC
DALLAS	4	0	0	1.3	C	13.9	PASS
DENTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ECTOR	0	0	0	0.0	A	*	INC
ELLIS	*	*	*	*	*	*	INC
EL PASO	20	3	0	8.2	F	*	INC
GALVESTON	2	0	0	0.7	B	9.6	PASS
GREGG	2	0	0	0.7	B	12.3	PASS
HARRIS	8	0	0	2.7	D	14.2	PASS
HARRISON	1	0	0	0.3	B	*	INC
HAYS	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HIDALGO	2	0	0	0.7	B	11.0	PASS
HOOD	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HUNT	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JEFF DAVIS	*	*	*	*	*	*	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]

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
JEFFERSON	248,605	63,672	33,469	5,418	12,663	7,499	2,853	62,922	12,572
JOHNSON	139,068	38,478	13,076	3,274	6,877	3,953	1,324	31,247	6,168
KAUFMAN	81,955	22,696	8,082	1,931	4,053	2,338	797	18,620	3,683
KLEBERG	31,308	8,475	3,355	721	1,579	888	301	6,962	1,378
LUBBOCK	250,446	64,060	27,794	5,452	12,865	7,253	2,469	57,153	11,292
MC LENNAN	219,807	58,045	27,577	4,940	11,175	6,418	2,331	52,115	10,397
MARION	11,028	2,474	2,080	211	583	370	165	3,390	690
MONTGOMERY	344,700	97,207	29,901	8,272	16,885	9,717	3,199	76,434	15,061
NUECES	315,206	88,926	35,523	7,568	15,488	9,061	3,266	74,072	14,744
ORANGE	84,390	22,117	11,025	1,882	4,257	2,551	978	21,537	4,321
PARKER	97,480	25,204	10,065	2,145	4,935	2,886	1,007	23,319	4,631
POTTER	117,335	33,950	13,693	2,889	5,718	3,296	1,179	26,753	5,294
ROCKWALL	54,630	15,361	4,399	1,307	2,679	1,530	490	11,881	2,334
SMITH	184,015	48,411	25,785	4,120	9,295	5,533	2,150	46,846	9,393
TARRANT	1,559,148	443,112	129,235	37,709	76,178	42,996	13,566	330,922	64,599
TRAVIS	857,204	211,607	58,054	18,008	44,170	23,972	6,668	174,297	33,337
VICTORIA	85,395	24,434	10,431	2,079	4,170	2,471	926	20,599	4,119
WEBB	213,615	79,654	16,211	6,779	9,216	5,066	1,559	38,083	7,421
TOTALS	**16,389,864**	**4,714,252**	**1,437,686**	**401,183**	**798,461**	**451,005**	**144,906**	**3,491,487**	**683,510**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
JEFFERSON	8	0	0	2.7	D
JOHNSON	14	2	0	5.7	F
KAUFMAN	2	0	0	0.7	B
KLEBERG	DNC	DNC	DNC	DNC	DNC
LUBBOCK	DNC	DNC	DNC	DNC	DNC
MC LENNAN	DNC	DNC	DNC	DNC	DNC
MARION	*	*	*	*	*
MONTGOMERY	14	3	0	6.2	F
NUECES	7	0	0	2.3	D
ORANGE	9	0	0	3.0	D
PARKER	25	2	0	9.3	F
POTTER	DNC	DNC	DNC	DNC	DNC
ROCKWALL	6	0	0	2.0	C
SMITH	5	0	0	1.7	C
TARRANT	69	9	2	28.8	F
TRAVIS	10	0	0	3.3	F
VICTORIA	4	0	0	1.3	C
WEBB	0	0	0	0.0	A

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
JEFFERSON	4	0	0	1.3	C	11.1	PASS
JOHNSON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KAUFMAN	*	*	*	*	*	*	INC
KLEBERG	*	*	*	*	*	*	INC
LUBBOCK	0	0	0	0.0	A	*	INC
MC LENNAN	1	0	0	0.3	B	*	INC
MARION	*	*	*	*	*	*	INC
MONTGOMERY	0	0	0	0.0	A	*	INC
NUECES	0	0	0	0.0	A	10.3	PASS
ORANGE	2	0	0	0.7	B	11.4	PASS
PARKER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
POTTER	0	0	0	0.0	A	*	INC
ROCKWALL	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SMITH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TARRANT	5	0	0	1.7	C	12.5	PASS
TRAVIS	3	0	0	1.0	C	*	INC
VICTORIA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WEBB	1	1	0	0.8	B	*	INC

Ozone
- Gregg County, Rockwall County, and Smith County improved their grades from an F to a C.
- Jefferson County and Orange County improved their grades from an F to a D.
- Kaufman County's grade dropped from an A to a B.
- Hidalgo County's grade dropped from a B to a C.
- Harrison County now has sufficient data to grade.
- Ozone data are now collected in Hays County and Hunt County, but insufficient data exist to grade.

24-Hour Particle Pollution
- Galveston County and Gregg County improved their grades from a C to a B.
- Jefferson County improved its grade from a D to a C.
- Brewster County and Harrison County now have sufficient data to grade.
- Cameron County and Hidalgo County's grade dropped from an A to a B.
- Particle pollution data are now collected in Kleberg County, but insufficient data exist to grade the county.

Annual Particle Pollution
- There were no changes in grades

(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: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BOX ELDER	44,504	14,993	4,767	1,276	2,161	1,163	413	9,331	1,858
CACHE	95,664	29,709	7,030	2,528	5,002	2,403	664	17,058	3,271
DAVIS	255,597	85,589	19,599	7,284	12,496	6,447	1,973	48,419	9,448
SALT LAKE	924,247	279,374	75,865	23,775	46,834	24,596	7,643	187,029	36,429
SAN JUAN	13,901	4,974	1,306	423	655	348	118	2,729	542
TOOELE	47,965	16,406	3,222	1,396	2,324	1,172	335	8,522	1,645
UTAH	398,059	137,168	25,580	11,673	19,725	9,409	2,493	65,445	12,497
WEBER	205,827	63,021	20,821	5,363	10,393	5,557	1,881	43,865	8,635
TOTALS	**1,985,764**	**631,234**	**158,190**	**53,718**	**99,590**	**51,095**	**15,520**	**382,398**	**74,325**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BOX ELDER	8	0	0	2.7	D
CACHE	0	0	0	0.0	A
DAVIS	6	1	0	2.5	D
SALT LAKE	15	1	0	5.5	F
SAN JUAN	0	0	0	0.0	A
TOOELE	DNC	DNC	DNC	DNC	DNC
UTAH	3	0	0	1.0	C
WEBER	7	0	0	2.3	D

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BOX ELDER	6	1	0	2.5	D	9.0	PASS
CACHE	12	8	0	8.0	F	12.8	PASS
DAVIS	9	2	0	4.0	F	*	INC
SALT LAKE	43	12	0	20.3	F	14.0	PASS
SAN JUAN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TOOELE	4	0	0	1.3	C	*	INC
UTAH	27	6	0	12.0	F	10.9	PASS
WEBER	8	3	0	4.2	F	10.2	PASS

Ozone
- Utah County's grade dropped from a B to a C.
- Weber County's grade dropped from a C to a D.
- Box Elder County now has sufficient data to grade.

24-Hour Particle Pollution
- There were no changes in particle pollution monitoring or grades.

Annual Particle Pollution
- There were no changes in grades

(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	36,835	8,407	4,210	715	2,436	1,148	413	9,335	1,878
BENNINGTON	37,178	8,060	6,333	686	2,347	1,238	524	11,028	2,236
CHITTENDEN	148,990	32,856	14,760	2,796	10,116	4,551	1,510	35,677	7,063
RUTLAND	63,504	13,549	9,558	1,153	4,087	2,092	841	18,161	3,665
WASHINGTON	58,836	12,631	7,593	1,075	3,841	1,901	720	16,026	3,216
TOTALS	**345,343**	**75,503**	**42,454**	**6,425**	**22,827**	**10,930**	**4,008**	**90,227**	**18,058**

(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 2001-2003[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 2001-2003[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	9.5	PASS
RUTLAND	0	1	0	0.5	B	*	INC
WASHINGTON	*	*	*	*	*	*	INC

Ozone
- Bennington County's grade improved from a D to a C.

24-Hour Particle Pollution
- Washington County no longer has sufficient data to grade.
- Particle pollution data are now collected in Addison County, but insufficient data exist to grade the county.

Annual Particle Pollution
- There were no changes in grades

(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	187,873	32,497	17,493	2,765	11,618	5,958	1,852	45,959	8,867
CAROLINE	23,190	5,516	3,030	469	1,354	720	272	6,048	1,207
CHARLES CITY	7,118	1,445	943	123	432	235	90	1,993	400
CHESTERFIELD	276,840	74,158	21,411	6,311	15,278	8,009	2,597	62,729	12,416
FAIRFAX	1,000,405	255,867	84,880	21,774	55,686	29,725	9,952	237,469	46,992
FAUQUIER	61,137	15,445	6,450	1,314	3,467	1,845	657	15,115	3,008
FREDERICK	64,565	16,079	7,000	1,368	3,689	1,936	681	15,740	3,114
HANOVER	94,081	24,014	10,525	2,044	5,336	2,834	1,026	23,321	4,655
HENRICO	271,083	66,850	33,255	5,689	15,553	8,228	3,019	68,254	13,542
LOUDOUN	221,746	65,273	11,710	5,555	11,703	5,813	1,567	42,047	8,005
MADISON	13,036	2,940	2,014	250	777	423	172	3,692	746
PAGE	23,589	5,219	3,762	444	1,417	766	312	6,685	1,344
PRINCE WILLIAM	325,324	97,116	17,040	8,265	17,160	8,554	2,351	62,236	11,959
ROANOKE	87,329	19,549	13,563	1,664	5,196	2,866	1,180	25,202	5,101
ROCKBRIDGE	20,973	4,383	3,498	373	1,280	701	292	6,199	1,254
STAFFORD	111,021	32,600	6,233	2,774	5,912	2,960	835	21,748	4,202
WYTHE	27,941	5,988	4,416	510	1,689	916	371	7,982	1,605

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ARLINGTON	26	7	1	12.8	F
CAROLINE	10	1	0	3.8	F
CHARLES CITY	19	5	0	8.8	F
CHESTERFIELD	17	1	0	6.2	F
FAIRFAX	37	9	2	18.2	F
FAUQUIER	5	0	0	1.7	C
FREDERICK	15	0	0	5.0	F
HANOVER	25	4	0	10.3	F
HENRICO	21	2	1	8.7	F
LOUDOUN	32	3	0	12.2	F
MADISON	19	1	0	6.8	F
PAGE	10	0	0	3.3	F
PRINCE WILLIAM	15	2	0	6.0	F
ROANOKE	11	0	0	3.7	F
ROCKBRIDGE	1	0	0	0.3	B
STAFFORD	19	2	1	8.0	F
WYTHE	9	0	0	3.0	D

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ARLINGTON	3	0	0	1.0	C	14.6	PASS
CAROLINE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHARLES CITY	2	0	0	0.7	B	12.8	PASS
CHESTERFIELD	2	0	0	0.7	B	13.6	PASS
FAIRFAX	7	0	0	2.3	D	14.0	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	2	0	0	0.7	B	13.7	PASS
LOUDOUN	3	0	0	1.0	C	13.6	PASS
MADISON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PAGE	3	0	0	1.0	C	12.9	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]

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
ALEXANDRIA CITY	128,923	23,614	12,710	2,010	7,870	4,063	1,296	31,762	6,135
BRISTOL CITY	17,206	3,532	3,657	301	1,075	588	267	5,413	1,101
CHESAPEAKE CITY	210,834	58,151	19,552	4,949	11,604	6,018	2,020	47,765	9,423
HAMPTON CITY	146,878	35,544	15,874	3,025	8,575	4,358	1,481	34,489	6,814
LYNCHBURG CITY	65,113	14,393	11,007	1,225	4,021	2,078	842	17,705	3,595
NEWPORT NEWS CITY	181,647	52,405	18,489	4,460	9,890	5,059	1,721	40,265	7,915
NORFOLK CITY	241,727	60,079	24,062	5,113	14,238	6,887	2,177	52,226	10,207
RICHMOND CITY	194,729	44,105	26,563	3,753	11,679	5,997	2,208	49,245	9,791
ROANOKE CITY	92,863	21,759	15,372	1,852	5,489	2,962	1,223	26,022	5,223
SALEM CITY	24,603	5,014	4,103	427	1,530	815	333	7,050	1,430
SUFFOLK CITY	73,515	19,726	7,707	1,679	4,106	2,125	734	17,081	3,370
VIRGINIA BEACH CITY	439,467	119,430	39,911	10,163	24,339	12,427	4,041	97,005	18,999
TOTALS	**4,634,756**	**1,182,691**	**446,230**	**100,649**	**261,963**	**135,866**	**45,569**	**1,078,447**	**212,420**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ALEXANDRIA CITY	15	4	0	7.0	F
BRISTOL CITY	DNC	DNC	DNC	DNC	DNC
CHESAPEAKE CITY	DNC	DNC	DNC	DNC	DNC
HAMPTON CITY	17	3	0	7.2	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	18	4	0	8.0	F
VIRGINIA BEACH CITY	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2001-2003[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	3	0	0	1.0	C	14.3	PASS
CHESAPEAKE CITY	5	0	0	1.7	C	12.5	PASS
HAMPTON CITY	2	0	0	0.7	B	12.5	PASS
LYNCHBURG CITY	1	0	0	0.3	B	*	INC
NEWPORT NEWS CITY	2	0	0	0.7	B	11.9	PASS
NORFOLK CITY	3	0	0	1.0	C	13.0	PASS
RICHMOND CITY	12	0	0	4.0	F	14.0	PASS
ROANOKE CITY	2	1	0	1.2	C	14.2	PASS
SALEM CITY	3	0	0	1.0	C	14.7	PASS
SUFFOLK CITY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
VIRGINIA BEACH CITY	2	0	0	0.7	B	12.6	PASS

Ozone
- Page County's grade dropped from a D to an F.
- Hanover County now has sufficient data to grade.

24-Hour Particle Pollution
- Grades for Norfolk City and Roanoke City's grade dropped from a B to a C.

Annual Particle Pollution
- Grades in Bristol County, Roanoke City, and Salem County 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.

WASHINGTON

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	16,602	5,418	1,705	461	1,010	444	157	3,574	714
BENTON	153,660	42,263	15,779	3,597	10,061	4,451	1,561	35,982	7,158
CLALLAM	66,892	13,482	14,580	1,147	4,775	2,339	1,089	21,824	4,470
CLARK	379,577	103,268	36,181	8,788	24,891	10,911	3,690	86,910	17,156
COWLITZ	95,146	23,977	12,850	2,040	6,404	2,930	1,136	24,913	5,002
GRANT	78,691	23,842	9,060	2,029	4,938	2,185	791	17,790	3,546
GRAYS HARBOR	69,406	16,018	10,496	1,363	4,801	2,215	887	19,083	3,848
JEFFERSON	27,716	4,949	5,918	421	2,043	1,013	472	9,517	1,956
KING	1,761,411	382,498	184,399	32,551	123,749	54,553	18,593	436,918	86,149
KITSAP	240,719	60,663	25,965	5,162	16,268	7,235	2,570	58,919	11,741
KLICKITAT	19,547	4,837	2,806	412	1,327	622	253	5,425	1,101
LEWIS	70,404	17,191	10,820	1,463	4,788	2,222	905	19,323	3,906
MASON	52,129	11,315	8,688	963	3,663	1,712	710	15,027	3,039
PIERCE	740,957	193,666	75,266	16,481	49,297	21,530	7,316	171,180	33,805
SKAGIT	109,234	26,811	15,609	2,282	7,411	3,389	1,328	28,887	5,805
SKAMANIA	10,292	2,458	1,136	209	709	321	118	2,667	535
SNOHOMISH	639,409	166,281	59,176	14,151	42,612	18,601	6,183	147,024	28,963
SPOKANE	431,027	104,842	53,163	8,922	29,389	13,127	4,810	108,102	21,575
STEVENS	40,776	10,284	5,633	875	2,760	1,287	518	11,151	2,267
THURSTON	221,950	52,124	25,492	4,436	15,321	6,843	2,463	56,121	11,182
WALLA WALLA	56,751	13,140	8,256	1,118	3,935	1,763	676	14,718	2,958
WHATCOM	176,571	39,686	21,124	3,377	12,372	5,442	1,932	44,012	8,756
WHITMAN	40,702	6,851	3,797	583	3,099	1,239	351	8,762	1,708
YAKIMA	226,727	69,725	25,273	5,934	14,137	6,259	2,255	50,969	10,149
TOTALS	**5,726,296**	**1,395,589**	**633,172**	**118,765**	**389,760**	**172,633**	**60,764**	**1,398,798**	**277,489**

(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 2001-2003[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
JEFFERSON	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	*	*	*	*	*
MASON	*	*	*	*	*
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 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS	*	*	*	*	*	*	INC
BENTON	0	0	0	0.0	A	6.5	PASS
CLALLAM	*	*	*	*	*	*	INC
CLARK	4	0	0	1.3	C	9.5	PASS
COWLITZ	*	*	*	*	*	*	INC
GRANT	*	*	*	*	*	*	INC
GRAYS HARBOR	*	*	*	*	*	*	INC
JEFFERSON	*	*	*	*	*	*	INC
KING	8	0	0	2.7	D	11.1	PASS
KITSAP	1	0	0	0.3	B	*	INC
KLICKITAT	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LEWIS	0	0	0	0.0	A	*	INC
MASON	*	*	*	*	*	*	INC
PIERCE	20	0	0	6.7	F	10.6	PASS
SKAGIT	*	*	*	*	*	*	INC
SKAMANIA	*	*	*	*	*	*	INC
SNOHOMISH	9	0	0	3.0	D	11.1	PASS
SPOKANE	8	0	0	2.7	D	10.1	PASS
STEVENS	*	*	*	*	*	*	INC
THURSTON	4	0	0	1.3	C	9.0	PASS
WALLA WALLA	*	*	*	*	*	*	INC
WHATCOM	0	0	0	0.0	A	7.4	PASS
WHITMAN	*	*	*	*	*	*	INC
YAKIMA	6	0	0	2.0	C	10.3	PASS

Ozone
- King County's grade dropped from a B to a C.
- Pierce County's grade dropped from an A to a B.

24-Hour Particle Pollution
- King County and Snohomish County improved their grades from an F to a D.
- Thurston County and Yakima County improved their grades from a D to a C.
- Adams County, Skagit County, and Whitman County no longer have sufficient data to grade.
- Particle pollution data is now collected in Grant County and Kitsap County, but insufficient data exist to grade the counties.

Annual Particle Pollution
- There were no changes in grades

(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: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BERKELEY	85,272	21,395	9,222	1,821	5,162	2,545	892	20,646	4,082
BROOKE	24,939	4,916	4,576	418	1,619	853	367	7,630	1,551
CABELL	95,043	19,129	15,360	1,628	6,086	3,131	1,254	26,982	5,419
GREENBRIER	34,656	7,250	6,234	617	2,226	1,172	506	10,556	2,142
HANCOCK	31,742	6,432	5,986	547	2,062	1,088	477	9,891	2,008
HARRISON	68,032	15,299	11,055	1,302	4,273	2,215	916	19,482	3,933
KANAWHA	195,413	41,445	32,413	3,527	12,521	6,508	2,713	57,598	11,636
MARION	56,484	11,409	9,700	971	3,635	1,891	786	16,648	3,359
MARSHALL	34,897	7,644	5,738	651	2,218	1,157	485	10,272	2,080
MERCER	62,113	12,896	10,836	1,097	3,984	2,083	880	18,518	3,746
MONONGALIA	84,370	14,922	8,844	1,270	5,428	2,643	833	19,898	3,926
OHIO	45,828	9,518	8,613	810	2,925	1,550	675	13,923	2,839
RALEIGH	79,254	16,498	12,200	1,404	5,086	2,615	1,050	22,688	4,564
SUMMERS	13,917	2,396	2,570	204	935	487	206	4,340	876
WOOD	87,339	19,571	13,760	1,665	5,502	2,847	1,167	24,969	5,038
TOTALS	**999,299**	**210,720**	**157,107**	**17,932**	**63,662**	**32,785**	**13,207**	**284,041**	**57,199**

(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 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
BERKELEY	13	0	0	4.3	F
BROOKE	DNC	DNC	DNC	DNC	DNC
CABELL	26	2	0	9.7	F
GREENBRIER	5	0	0	1.7	C
HANCOCK	20	1	0	7.2	F
HARRISON	DNC	DNC	DNC	DNC	DNC
KANAWHA	11	0	0	3.7	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	19	1	0	6.8	F
RALEIGH	DNC	DNC	DNC	DNC	DNC
SUMMERS	DNC	DNC	DNC	DNC	DNC
WOOD	20	3	0	8.2	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BERKELEY	7	0	0	2.3	D	16.3	FAIL
BROOKE	8	0	0	2.7	D	16.8	FAIL
CABELL	8	0	0	2.7	D	16.6	FAIL
GREENBRIER	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HANCOCK	15	0	0	5.0	F	17.4	FAIL
HARRISON	5	0	0	1.7	C	14.0	PASS
KANAWHA	9	0	0	3.0	D	17.1	FAIL
MARION	6	0	0	2.0	C	15.4	FAIL
MARSHALL	5	0	0	1.7	C	15.7	FAIL
MERCER	2	0	0	0.7	B	12.5	PASS
MONONGALIA	8	0	0	2.7	D	14.9	PASS
OHIO	7	0	0	2.3	D	15.2	FAIL
RALEIGH	3	0	0	1.0	C	13.1	PASS
SUMMERS	2	0	0	0.7	B	10.1	PASS
WOOD	7	0	0	2.3	D	16.0	FAIL

Ozone
- Sufficient data now exists to grade Berkeley County.

24-Hour Particle Pollution
- Ohio County's grade dropped from a C to a D.

Annual Particle Pollution
- There were no changes in grades

(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				CV Disease	Diabetes
				Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema		
ASHLAND	16,651	3,970	2,545	338	966	522	208	4,459	901
BROWN	233,888	59,197	25,052	5,038	13,076	6,894	2,378	55,192	10,912
COLUMBIA	54,076	12,749	7,637	1,085	3,067	1,697	660	14,443	2,895
DANE	449,378	99,279	41,709	8,449	26,445	13,504	4,296	103,986	20,368
DODGE	87,115	19,931	12,054	1,696	5,013	2,721	1,031	22,818	4,551
DOOR	28,402	5,727	5,557	487	1,680	984	440	9,028	1,841
DOUGLAS	44,093	9,886	6,278	841	2,574	1,403	544	11,916	2,389
FLORENCE	5,081	1,020	962	87	301	175	77	1,586	323
FOND DU LAC	97,833	23,013	13,976	1,958	5,620	3,064	1,191	25,985	5,217
GRANT	49,368	10,827	7,781	921	2,980	1,577	625	13,358	2,704
GREEN	34,280	8,507	4,935	724	1,912	1,065	422	9,154	1,839
JEFFERSON	77,421	17,991	9,602	1,531	4,485	2,387	871	19,539	3,912
KENOSHA	156,209	41,089	17,341	3,497	8,604	4,573	1,613	37,017	7,336
KEWAUNEE	20,455	4,882	3,018	415	1,162	643	255	5,517	1,109
MANITOWOC	82,065	19,467	12,764	1,657	4,662	2,613	1,064	22,772	4,592
MARATHON	127,168	31,995	16,742	2,723	7,098	3,885	1,480	32,732	6,548
MILWAUKEE	933,221	247,083	115,135	21,027	51,245	27,458	10,054	225,999	44,920
ONEIDA	37,187	7,543	7,168	642	2,195	1,277	564	11,625	2,365
OUTAGAMIE	167,411	43,817	18,546	3,729	9,214	4,902	1,723	39,626	7,844
OZAUKEE	84,772	20,736	11,250	1,765	4,765	2,667	1,043	22,825	4,608

(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.lungusa.org/wisconsin

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
ASHLAND	DNC	DNC	DNC	DNC	DNC
BROWN	9	1	0	3.5	F
COLUMBIA	3	0	0	1.0	C
DANE	3	0	0	1.0	C
DODGE	6	0	0	2.0	C
DOOR	19	3	0	7.8	F
DOUGLAS	DNC	DNC	DNC	DNC	DNC
FLORENCE	1	0	0	0.3	B
FOND DU LAC	5	0	0	1.7	C
GRANT	DNC	DNC	DNC	DNC	DNC
GREEN	1	0	0	0.3	B
JEFFERSON	7	0	0	2.3	D
KENOSHA	30	6	1	13.7	F
KEWAUNEE	17	2	0	6.7	F
MANITOWOC	19	2	0	7.3	F
MARATHON	0	0	0	0.0	A
MILWAUKEE	24	3	0	9.5	F
ONEIDA	0	0	0	0.0	A
OUTAGAMIE	5	0	0	1.7	C
OZAUKEE	22	4	0	9.3	F

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ASHLAND	*	*	*	*	*	*	INC
BROWN	3	0	0	1.0	C	11.5	PASS
COLUMBIA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DANE	5	0	0	1.7	C	12.5	PASS
DODGE	2	0	0	0.7	B	11.0	PASS
DOOR	0	0	0	0.0	A	*	INC
DOUGLAS	0	0	0	0.0	A	*	INC
FLORENCE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FOND DU LAC	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GRANT	1	0	0	0.3	B	11.4	PASS
GREEN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JEFFERSON	1	0	0	0.3	B	*	INC
KENOSHA	2	0	0	0.7	B	11.7	PASS
KEWAUNEE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MANITOWOC	0	0	0	0.0	A	9.9	PASS
MARATHON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MILWAUKEE	10	1	0	3.8	F	13.1	PASS
ONEIDA	DNC	DNC	DNC	DNC	DNC	DNC	DNC
OUTAGAMIE	2	0	0	0.7	B	10.7	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	192,284	49,981	23,465	4,253	10,607	5,768	2,141	47,983	9,578
ROCK	154,794	39,723	19,852	3,380	8,581	4,675	1,761	39,159	7,821
SAINT CROIX	71,155	18,153	6,707	1,545	3,949	2,079	690	16,418	3,229
SAUK	56,432	13,806	8,185	1,175	3,171	1,757	694	15,073	3,024
SHEBOYGAN	113,376	27,312	15,661	2,324	6,415	3,519	1,356	29,799	5,964
TAYLOR	19,539	4,886	3,027	416	1,095	609	248	5,284	1,066
VERNON	28,496	7,382	4,686	628	1,579	895	379	7,949	1,613
VILAS	22,041	4,196	5,130	357	1,322	789	376	7,465	1,529
WALWORTH	96,812	22,488	12,483	1,914	5,631	2,985	1,099	24,610	4,907
WASHINGTON	122,241	30,558	14,106	2,600	6,792	3,700	1,343	30,527	6,072
WAUKESHA	374,079	92,120	47,062	7,839	20,875	11,601	4,410	97,989	19,652
WINNEBAGO	158,500	36,155	19,888	3,077	9,214	4,893	1,775	40,005	7,973
WOOD	75,402	17,971	12,180	1,529	4,279	2,404	993	21,073	4,253
TOTALS	**4,271,225**	**1,053,440**	**532,484**	**89,647**	**240,574**	**129,685**	**47,804**	**1,072,911**	**213,855**

(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.lungusa.org/wisconsin

HIGH OZONE DAYS 2001-2003[1]

County	Orange	Red	Purple	Wgt. Avg	Grade
RACINE	12	5	0	6.5	F
ROCK	6	0	0	2.0	C
SAINT CROIX	1	0	0	0.3	B
SAUK	0	0	0	0.0	A
SHEBOYGAN	29	8	0	13.7	F
TAYLOR	DNC	DNC	DNC	DNC	DNC
VERNON	0	0	0	0.0	A
VILAS	0	0	0	0.0	A
WALWORTH	9	0	0	3.0	D
WASHINGTON	9	0	0	3.0	D
WAUKESHA	7	0	0	2.3	D
WINNEBAGO	6	0	0	2.0	C
WOOD	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
RACINE	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ROCK	1	0	0	0.3	B	*	INC
SAINT CROIX	0	0	0	0.0	A	*	INC
SAUK	*	*	*	*	*	*	INC
SHEBOYGAN	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TAYLOR	0	0	0	0.0	A	*	INC
VERNON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
VILAS	0	0	0	0.0	A	6.6	PASS
WALWORTH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WASHINGTON	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WAUKESHA	6	0	0	2.0	C	13.2	PASS
WINNEBAGO	0	0	0	0.0	A	*	INC
WOOD	0	0	0	0.0	A	*	INC

Ozone
- Marathon County's grade improved from a B to an A.
- Rock County's grade improved from a D to a C.
- Dane County's grade dropped from a B to a C.
- Waukesha County's grade dropped from a C to a D.
- Brown County's grade dropped from a D to an F.

24-Hour Particle Pollution
- Saint Croix County's grade improved from a B to an A.
- Waukesha County's grade improved from a D to a C.
- Sufficient data now exists to grade Taylor County.
- Particle pollution data are now collected in Sauk County, but insufficient data exists to grade the county.

Annual Particle Pollution
- There were no changes in grades

(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: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
CAMPBELL	36,240	10,103	1,885	860	1,865	1,005	290	7,466	1,463
CONVERSE	12,330	3,118	1,445	265	676	381	144	3,209	647
FREMONT	35,914	9,172	4,970	781	1,989	1,114	442	9,574	1,937
LARAMIE	84,083	20,893	9,842	1,778	4,651	2,536	915	20,784	4,135
SHERIDAN	27,111	5,984	4,153	509	1,574	895	368	7,847	1,594
TETON	18,625	3,511	1,389	299	1,078	588	181	4,529	882
TOTALS	**214,303**	**52,781**	**23,684**	**4,492**	**11,833**	**6,519**	**2,340**	**53,409**	**10,658**

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

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HIGH OZONE DAYS 2001-2003[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 2001-2003[2]

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
CAMPBELL	0	0	0	0.0	A	6.5	PASS
CONVERSE	0	0	0	0.0	A	*	INC
FREMONT	3	0	0	1.0	C	*	INC
LARAMIE	0	0	0	0.0	A	4.9	PASS
SHERIDAN	3	0	0	1.0	C	10.4	PASS
TETON	0	0	0	0.0	A	*	INC

Ozone
- Ozone data are now collected in Campbell County, but insufficient data exist to grade the county.

24-Hour Particle Pollution
- Sufficient data now exist to grade Campbell County, Converse County and Teton County for particle pollution.

Annual Particle Pollution
- There were no changes in grades

(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.

find out...

Go to www.lungusa.org

- To quickly find out about the air where you live. Look for the blue box on the home page and type in your zip code. You'll get your county's grade and more information.
- To see a flash video about how pollution affects your health.
- To get information on how to protect yourself and your family on bad air days.
- To join the fight to stop corporate polluters from changing the rules to escape responsibility.
- To find out if your city is one of the worst – or the best – in the country.
- To reach a Lung Association in office your area.

if you are breathing healthy air

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 2001-2003 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 obtained from EPA's Office of Air Quality Planning and Standards on February 1, 2005. (Communication from Mark Schmidt).

Ozone Data Analysis

The 2001, 2002, and 2003 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 2001, 2002, and 2003, 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.

Short-term Particle Pollution Data Analysis

A.S.L. & Associates identified the maximum daily 24-hour AIRS $PM_{2.5}$ concentration for each county in 2001, 2002, and 2003 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 µg/m³ to 15.4 µg/m³	Good (Green)
from 15.5 µg/m³ to 40.4 µg/m³	Moderate (Yellow)
from 40.5 µg/m³ to 65.4 µg/m³	Unhealthy for Sensitive Groups (Orange)
from 65.5 µg/m³ to 150.4 µg/m³	Unhealthy (Red)
from 150.5 µg/m³ to 250.4 µg/m³	Very Unhealthy (Purple)
greater than or equal to 250.5 µg/m³	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 non-FRM methods, which reported 24-h averaged data.

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.

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 (MSA). Therefore, comparisons of MSAs from the *American Lung Association State of the Air 2005* or any *State of the Air* reports prior to 2004 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.

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 used 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 the 8-hour ozone standard set in 1997 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 in communication from EPA's Office of Air Quality Planning and Standards in February, 2005 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.

Calculations of Populations-at-Risk

Presently, state (with the exception of adult asthma) and county-specific measurements of the number of persons with chronic and acute lung disease are not available. In order to assess the magnitude of lung disease 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 within the counties served by Lung Association constituents and affiliates.

Population Estimates.

The U.S. Census Bureau estimated data on the total population of each county in the United States for 2003. The Census Bureau also estimated the age specific breakdown of the population by county.

Prevalence Estimates

Chronic Bronchitis, Emphysema, Diabetes and Pediatric Asthma. In 2003, the National Health Interview Survey (NHIS) estimated the nationwide annual prevalence of diagnosed chronic bronchitis at 8.6 million; the nationwide lifetime prevalence of emphysema was estimated at 3.1 million.

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 2001-2004* reports. Furthermore, estimates for chronic bronchitis and emphysema cannot be summed since they represent different types of prevalence estimates.

This is the first year the *American Lung Association State of the Air* report includes prevalence data on diabetes, because of emerging recognition of risk to persons with this disease. According to the NHIS, the nationwide lifetime prevalence of diabetes was estimated at 14 million.

The NHIS estimates the prevalence of diagnosed pediatric asthma to be 6.2 million under age 18. Pediatric asthma prevalence estimates can only be compared to the *American Lung Association State of the Air 2004* report. Due to another change to the National Health Interview Survey, pediatric asthma prevalence estimates found in this report represent current asthma prevalence, not asthma attack prevalence as was depicted in the *American Lung Association State of the Air 2000-2003* reports. Subsequently, pediatric asthma estimates will be much higher in this report than in previous ones due to the nature of the question.

Local area prevalence of chronic bronchitis, emphysema, diabetes and pediatric asthma are estimated by applying age-specific national prevalence rates from the 2003 NHIS to age-specific county-level resident populations obtained from the U.S. Bureaus of the Census web site. Prevalence estimates for chronic bronchitis, emphysema and diabetes are calculated for those 18-24, 25-44, 45 to 64 and 65+. The prevalence estimate for pediatric asthma is calculated for those under age 18.

Adult Asthma. In 2003, the Behavioral Risk Factor Surveillance System (BRFSS) survey indicated that approximately 7.7% 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 come from the National Health Interview Survey.

The prevalence estimate for adult asthma is calculated for those 18 to 24,25-44, 45 to 64 and 65+. Local area prevalence of adult asthma is estimated by applying age-specific state prevalence rates from the 2003 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.

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 acute and chronic lung disease on the national level and the BRFSS is the best available source for 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 lung 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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Celebrating its 100th anniversary, the American Lung Association works to prevent lung disease and promote lung health. Lung diseases and breathing problems are the leading causes of infant deaths in the United States today, and asthma is the leading serious chronic childhood illness. Smoking remains the nation's leading preventable cause of death. Lung disease death rates continue to increase while other leading causes of death have declined.

The American Lung Association has long funded vital research on the causes of and treatments for lung disease. It is 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. It educates children and adults living with lung diseases on managing their condition. With the generous support of the public, 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 it does, call **1-800-LUNG-USA** (1-800-586-4872) or log on to **www.lungusa.org**.

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