AMERICAN LUNG ASSOCIATION®

State of the Air: 2008

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Executive Summary

The State of the Air

Populations at Risk in the US

Populations at Risk in the 25 Most Polluted US Cities

Populations at Risk in the 25 Most Polluted US Counties

Cleanest Cities in the US

Cleanest Counties in the US

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The American Lung Association assumes sole responsibility for the content of the *American Lung Association State of the Air 2008*.

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Executive Summary

Air pollution continued to challenge the nation in 2004, 2005, and 2006. Some cities—notably Los Angeles and Houston—managed to steadily cut ozone and particle pollution. Progress stalled in many other cities, slowing or eroding gains recorded earlier in the decade. For the first time, a city outside of California—Pittsburgh—topped one of the lists of the most polluted city—and stands on the verge of topping a second.

The adoption of a new ozone standard on March 12th will require redoubled efforts to reduce the nation's most common air pollutant. The history of battling ozone shows that aggressive measures can cut emissions, leading to much cleaner air. However, the trends shown in this report warn that progress can stall without putting more measures in place to reduce ozone. Unfortunately, some have proposed changes that would weaken the Clean Air Act and set back the progress toward healthier air.

Looking at the nation as a whole, the ***American Lung Association State of the Air 2008*** finds:

- **Two of every five people—42 percent—in the U.S. live in counties that have unhealthful levels of either ozone or particle pollution.**
  Almost 125 million Americans live in 216 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 one-third of the U.S. population—31 percent—live in areas with unhealthful levels of ozone.**
  Counties that were graded F for ozone levels have a combined population of over 92.5 million. One in three Americans live in counties where the monitored air quality places them at risk for decreased lung function, respiratory infection, lung inflammation and aggravation of respiratory illness.

- **Over one quarter of the people in the United States live in an area with unhealthful short-term levels of particle pollution.**
  Over 81.4 million Americans live in areas where there are too many days of unhealthy spikes in particle pollution. Short-term spikes in particle pollution can last from hours to several days and can increase the risk of heart attacks, strokes and emergency-room visits for asthma and cardiovascular disease, and most importantly, can increase the risk of early death.

- **One in six people in the United States lives in an area with unhealthful year-round levels of particle pollution.**
  Nearly 50 million Americans suffer from chronic exposure to particle pollution. Even when levels are fairly low, exposure to particles over time can increase risk of hospitalization for asthma, damage to the lungs and, significantly, increase the risk of premature death.

- **About 30.4 million Americans—roughly one in 10 people—live in 18 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 people are at greater risk because of their age or because they have asthma or other chronic lung or cardiovascular diseases or diabetes. Here are the numbers of people in each at-risk group.

- **People with Asthma—**Approximately 2.2 million children and over 5.5 million adults with asthma live in parts of the United States with very high levels of ozone. Nearly 5 million adults and over 1.9 million children with asthma live in areas with high levels of short-term particle pollution. Nearly 3 million adults and over 1.2 million children with asthma live in counties with unhealthful levels of year-round particle pollution.

- **Older and Younger—**Over 10.2 million adults age 65 and over and nearly 24 million children age 18 and under live in counties with unhealthful ozone levels. Over 9.4 million seniors and 20.6 million children live in counties with unhealthful short-term levels of particle pollution. Over 5.5 million seniors and 13 million children live in counties with unhealthful levels of year-round particle pollution.

- **Chronic Bronchitis and Emphysema—**Nearly 2.9 million people with chronic bronchitis and over 1.2 million with emphysema live in counties with unhealthful ozone levels. Nearly 2.6 million people with chronic bronchitis and 1.1 million with emphysema live in counties with unhealthful levels of short-term particle pollution. Over 1.5 million people with chronic bronchitis and over 644,000 people with emphysema live in counties with unhealthful year-round levels of particle pollution.

- **Cardiovascular Diseases—**Nearly 20.1 million people with cardiovascular diseases live in areas with unhealthful levels of short-term particle pollution; nearly 12 million people live in counties with unhealthful levels of year-round particle pollution. Cardiovascular disease includes coronary heart disease, heart attacks, strokes, hypertension and angina pectoris.

- **Diabetes**—Over 4.6 million people with diabetes live in areas with unhealthful levels of short-term particle pollution; over 2.7 million people live in counties with unhealthful levels of year-round particle pollution.

Research indicates that diabetics face increased risk due to the damage particle pollution can cause to their cardiovascular systems.

The American Lung Association also calls for these key steps needed to improve the air we all breathe.

- **Ensure every county is protected from ozone.** The U.S. Environmental Protection Agency (EPA) has just adopted a new, tighter national standard for ozone, an important step that drives the measures to clean up the sources of ozone pollution all across the nation. Now the EPA must determine which counties to protect and which counties to leave out of the clean up requirements. The American Lung Association urges the EPA to include every county in planning and protection in every metropolitan area that has monitored unhealthy levels of ozone. The Lung Association opposes leaving counties left out of the planning for protection from this dangerous pollutant.

- **Protect the Clean Air Act.** Since 1970, the Clean Air Act has proven to be one of the nation's leading public health laws. Thanks to clean-up measures put in place under the Act, emissions from all pollutants have dropped in half since 1980. However, in March the EPA proposed substantial changes to the Act, changes that would weaken decades-old protections to the public. The American Lung Association will oppose any changes that weaken the Clean Air Act.

- **Clean up dirty power plants.** Old, coal-fired power plants are among the biggest industrial contributors to unhealthful air, especially particle pollution in the eastern United States. The toll of death, disease and environmental destruction caused by coal-fired power plant pollution continues to mount. The EPA issued rules in 2005 that give states the tools to clean up these plants. However, the EPA has issued other rules that give the electric power plants huge loopholes in complying with the Clean Air Act. The American Lung Association and our partners will continue to take steps to ensure that loopholes are removed.

  Several Northeastern states are considering adopting even more stringent requirements for their power plants. The American Lung Association repeatedly urged the EPA to use this opportunity to clean up even more pollution, faster. The American Lung Association supports efforts in Congress to strengthen the Clean Air Act to further clean up these heavy polluters.

- **Clean up existing diesel equipment.** New diesel buses, trucks, and heavy equipment are cleaner than ever, thanks to clean up requirements EPA has put in place in the last decade. Diesel fuels are also much cleaner. However, old diesel engines last a long time. Diesel engines in school buses, highway trucks, and other equipment continue to operate for hundreds of thousands of miles, threatening the health of millions—especially those on or near highways—with dangerous exposure to diesel exhaust. Each community

should move rapidly to retrofit and replace old diesel school buses and other equipment in the public diesel fleet. Communities should require contractors to clean up trucks and construction equipment. These and other steps can reduce the burden of pollution from old, dirty, diesel equipment and vehicles.

- **Require all ships calling on U.S. ports to use cleaner marine fuels and engines.** Although international shipping is essential to the global economy, it also produces large amounts of air pollution. Emissions from these engines seriously worsen national ozone, carbon monoxide, sulfur oxide, and particle pollution levels, especially in communities near commercial ports such as Seattle, Oakland, Chicago, Los Angeles, New Orleans, and New York. Both foreign-flagged as well as U S ships must be required to use much cleaner fuels and engines.

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

- **Drive less.** Combine trips, walk, bike, carpool or vanpool, and use buses, subways or other alternatives to driving. Vehicle emissions are a major source of air pollution. Support community plans that provide ways to get around that don't require a car, such as more sidewalks, bike trails and transit systems.

- **Don't burn wood or trash**. Burning firewood and trash are among the largest sources of particles in many parts of the country. If you must use a fireplace or stove for heat, convert your woodstoves to natural gas, which has far fewer polluting emissions. Compost and recycle as much as possible and dispose of other waste properly; don't burn it. Support efforts in your community to ban outdoor burning of construction and yard wastes. Avoid the use of outdoor hydronic heaters, also called outdoor wood boilers, which are often much more polluting than woodstoves.

- **Get involved.** Participate in your community's review of its air pollution plans and support state and local efforts to clean up air pollution.

- **Use less electricity.** Turn out the lights and use energy-efficient appliances. Generating electricity is one of the biggest sources of pollution, particularly in the eastern United States.

- **Send a message to decision makers.** Send an email or fax to urge Congress to oppose measures that weaken the Clean Air Act. Log on at www.lungusa.org to see how easy that can be.

The State of the Air in 2004–2006

Air pollution continued to challenge the nation in 2004, 2005, and 2006. Some cities—notably Los Angeles and Houston—managed to steadily cut ozone and particle pollution. Progress stalled in many other cities, however, slowing or eroding gains recorded earlier in the decade. For the first time, a city outside of California—Pittsburgh—topped one of the lists of the most polluted cities—and stands on the verge of topping a second. Over 124.7 million people live in places where air pollution levels for ozone or fine particle pollution place human health at risk.

Many cities have multiple problems. Eight metropolitan areas ranked as the nation's most polluted cities by every measure. Five of the eight are from California—Los Angeles, Bakersfield, Fresno, Visalia-Porterfield, and Hanford-Corcoran—with Washington, DC-Baltimore, St. Louis, and Birmingham rounding out the list. Seven metropolitan areas landed on two of the three lists, including Pittsburgh, Atlanta, New York City, Detroit, Chicago, Louisville, and Merced, California.

Two cities ranked at the top of the cleanest cities in the United States: Fargo, North Dakota, and Salinas, California. These metropolitan areas recorded no unhealthy ozone or particle pollution days and ranked as having some of the lowest annual levels of particle pollution. Three cities scored the best for ozone and annual levels of particle pollution: Albuquerque, New Mexico; Duluth, Minnesota; and Honolulu, Hawaii.

Policy changes

On March 12, the U.S. Environmental Protection Agency (EPA) adopted a tighter national air quality standard for ozone based on the new research that shows serious harm at much lower levels of exposure. Meeting that standard will require redoubled efforts to reduce the nation's most common air pollutant. The history of battling ozone shows that aggressive measures can cut emissions, leading to much cleaner air. However, the trends shown in this report warn that progress can stall without putting more measures in place to reduce ozone.

Unfortunately, that same day, the EPA announced recommendations for changes that would dismantle the core principles that are embodied in the Clean Air Act. The EPA Administrator offered to allow the state and local governments to determine which pollutants to ignore and which to clean up. The Clean Air Act recognized these pollutants as the national priority because they were the most widespread and dangerous. The EPA has the responsibility to protect the health of all of the public from these pollutants, not just some,

and required the states and local governments to reduce the burden of all these pollutants, not just some.

On March 14, the EPA announced the long-awaited requirements for much cleaner diesel locomotive and marine equipment. Trains and ships contribute tons of diesel particle pollution and tons of nitrogen oxides that lead to ozone problems. This step will help reduce pollution from ports, rivers and industrial areas across the nation. This action will require the clean-up of diesel locomotives, barges, tugs, and boats beginning in 2008.

Particle pollution

For the first time, a city not in California—Pittsburgh—moved to the top of a most polluted list. Pittsburgh edged out Los Angeles, despite having slightly fewer days in this report than last year. In addition, Pittsburgh's annual level of particle pollution just missed tying Los Angeles in this year's report, and may overtake it next year. Aggressive emissions controls in the Los Angeles basin dropped the year-round particle levels by just under one-third during this decade. By contrast, the ranking for Pittsburgh remains only marginally better than in the 2007 report and tied with its level in the 2006 report. Los Angeles remains at the top of the list of cities most polluted year-round by particle pollution.

Several cities that also reduced year-round particle pollution dropped off the "25 most polluted" list this year, including New York City, Chicago, Philadelphia and Indianapolis. Several cities saw increased particle pollution, including Atlanta, Birmingham, Hanford-Corcoran (California), and Macon (Georgia).

By contrast, most cities curtailed the number of days with dangerous levels of short-term particle pollution. On the list of the cities most polluted by these spikes in particles, cities shifted rankings based more on how they compared with other cities than on their own improvements. Several metro areas had markedly fewer days of high particle pollution, including Washington, DC-Baltimore-Northern Virginia, Eugene (OR), Harrisburg (PA), San Diego and Weirton-Steubenville (WV-OH). Sacramento and Modesto, California reported more days with high particle pollution spikes.

In a report published in January, 2008, the EPA analyzed trends in particle pollution, along with ozone and four other pollutants. The analysis of particle pollution shows a clear drop from 2000 to 2006, but most of that drop occurred between 2000 and 2002. Adjusted for weather, the three-year average particle pollution levels declined during 2004-2006 compared to 2003-2005. However, the adjustment shows a general stalling in particle levels between 2002 and 2006.

Nationwide particle pollution trends, 2000-2006

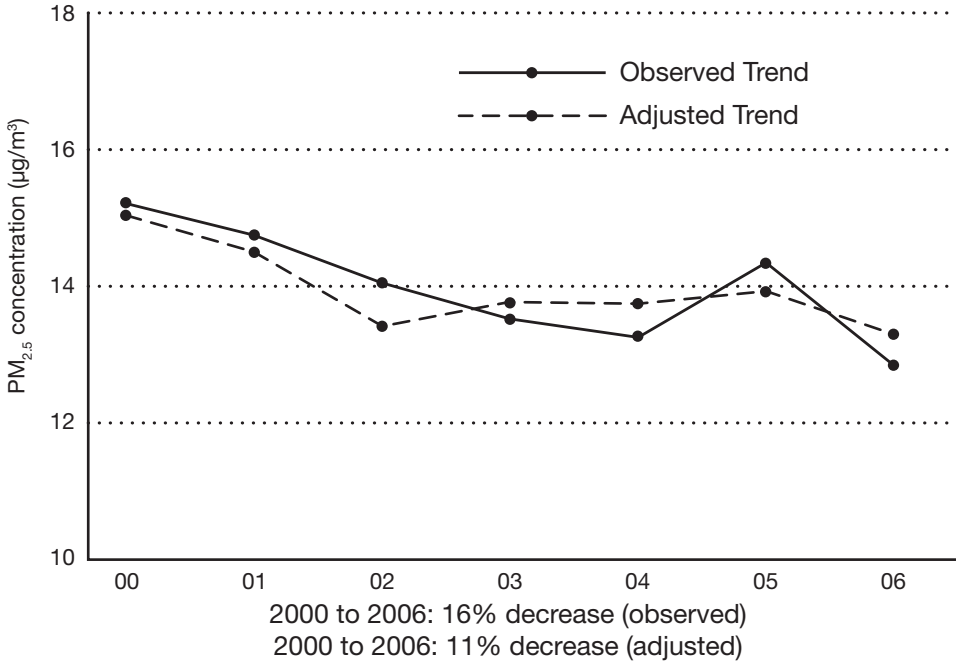

Fig. 1. Chart showing changes in particle pollution concentrations nationwide in monitored data (observed trend) and in particle pollution concentrations adjusted for meteorology (adjusted trend). From U.S. Environmental Protection Agency, *Latest Findings on National Air Quality: Status and Trends through 2006.* January 2008.

Rankings for the year-round particle pollution list also changed despite improved levels in some cities because other cities made even greater improvements. For example, Louisville saw its rankings worsen, moving to 18th most polluted from 22nd, despite a slight improvement in year-round levels because other cities made much greater progress.

A few other cities also improved their air quality, despite continuing to rank in the list of cities most polluted by year-round levels of particle pollution. Detroit and Cleveland both dropped their annual levels. Improvements tapered off in other cities.

Ozone

The five worst cities for ozone all saw good improvement in their ozone levels during 2004-2006, including Los Angeles and Houston—two cities with most infamous smog problems. In particular, Fresno (CA) marked a remarkable decline in high ozone days since a peak in 2001-2003, showing a drop of two-thirds in that metro area's weighted average. Most cities on the list of the most polluted had fewer high ozone days in the 2004–2006 period, compared to last year's report, including Dallas, New York City, and Philadelphia. Several cities on the most ozone-polluted list fared worse in 2004–2006 over the previous report—Sacramento, San Diego, Washington, DC-Baltimore, Atlanta and Charlotte. New to the list of most polluted cities for ozone is Birmingham.

Much of the eastern United States continues to benefit from controls placed between 1999 and 2004 on coal-fired power plants and other sources of nitrogen oxides, one of the precursors to ozone. Cleaner cars and other measures continue to cut emissions of volatile organic compounds (VOCs), the other ozone precursor nationwide. The cool, wet summer of 2004 helped keep ozone days down in some parts of the nation, though warmer summers returned in 2005 and 2006.

Although ozone levels remain lower, they appear to be leveling off. In January 2008, the EPA analyzed ozone trends from 1990 to 2006 nationwide and adjusted them for weather, finding that the adjusted levels showed a seven percent decline from 1997 to 2006. However, the adjusted levels between 2004 and 2006 showed a distinct uptick, though still well below the levels of a decade earlier.

Nationwide ozone pollution trends, 2000-2006

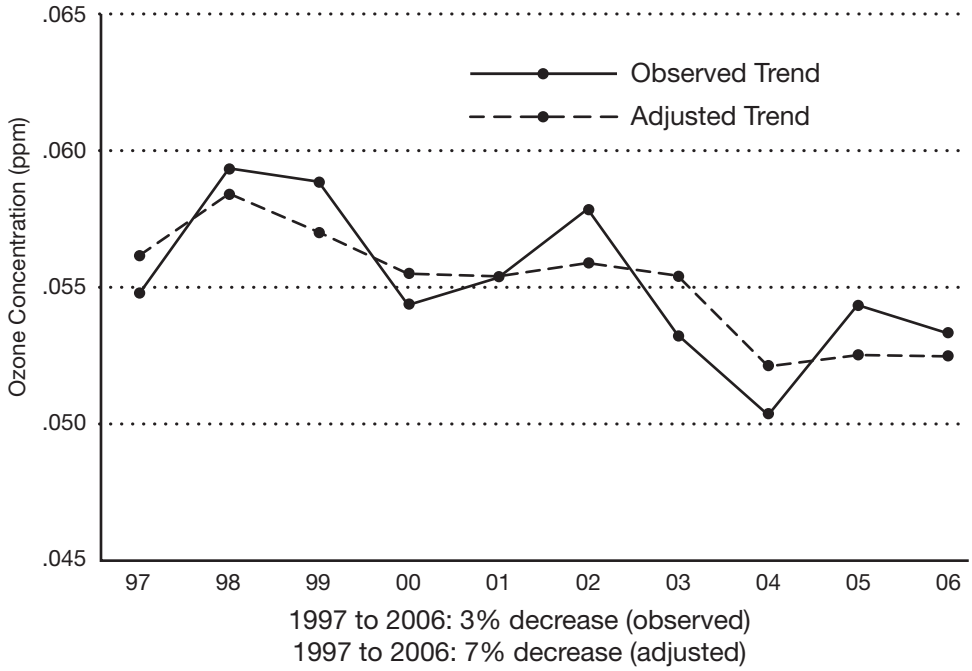

Fig. 2. Chart showing changes in ozone concentrations in monitored data (observed trend) and in ozone levels adjusted for weather (adjusted trend). From U.S. Environmental Protection Agency, *Latest Findings on National Air Quality: Status and Trends through 2006.* January 2008.

Cities showing significantly more ozone problems in the 2004-2006 report include Birmingham, which moved to the most polluted list for ozone for the first time, and San Diego, which returned to the list for the first time since the 2004 report. Many cities on the most polluted list improved, including Merced, California, which improved its ranking to 17th from 6th most polluted. Three cities improved enough to drop completely from the most polluted list, although they continue to receive a failing grade: Milwaukee, Wisconsin; Grand Rapids, Michigan; and Cleveland, Ohio.

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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
	2006	1,907,529	663,978	1,042,736	425,983	8,362,853	1,775,331
	2007	723,267	254,527	366,951	162,864	2,870,181	678,454
	2008	799,193	298,995	438,739	195,191	3,531,603	808,561
Grade B (0.3-0.9)	2004	2,091,803	777,232	1,234,260	429,795	7,998,682	(1)
	2005	2,177,008	850,022	1,165,895	421,841	9,554,840	1,899,681
	2006	2,508,661	882,494	1,296,874	507,256	10,178,986	2,151,354
	2007	1,430,438	498,993	738,503	328,417	5,784,989	1,367,113
	2008	1,542,507	583,082	852,038	373,474	6,794,782	1,556,669
Grade C (1.0-2.0)	2004	2,494,275	941,891	1,500,267	514,544	9,635,256	(1)
	2005	2,241,512	849,957	1,181,534	419,786	9,612,249	1,905,198
	2006	2,881,178	1,002,944	1,465,631	574,248	11,532,058	2,435,734
	2007	2,351,675	892,012	1,223,190	510,249	9,167,840	2,190,730
	2008	3,088,726	1,133,161	1,605,538	686,637	12,608,195	2,894,763
Grade D (2.1-3.2)	2004	1,341,788	496,552	783,391	263,649	4,966,969	(1)
	2005	1,711,703	622,929	873,476	312,009	7,131,044	1,413,876
	2006	1,182,987	394,221	597,144	232,231	4,665,231	985,191
	2007	2,062,482	798,520	1,063,714	443,747	7,959,894	1,899,877
	2008	1,966,230	767,766	1,014,248	423,894	7,852,670	1,803,902
Grade F (3.3+)	2004	4,468,378	1,766,912	2,649,823	888,281	16,729,853	(1)
	2005	4,606,903	1,679,638	2,254,726	801,992	18,325,151	3,627,483
	2006	3,907,150	1,421,992	1,974,959	763,403	15,371,186	3,236,265
	2007	5,509,134	2,125,283	2,846,148	1,194,055	21,368,462	5,093,142
	2008	4,999,185	1,914,328	2,580,828	1,086,461	20,071,520	4,606,131
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
	2006	13,109,352	4,607,401	6,738,927	2,643,257	52,913,571	11,178,920
	2007	12,888,115	4,867,064	6,647,841	2,809,175	50,202,520	11,958,143
	2008	13,055,765	4,932,066	6,828,038	2,908,815	53,493,186	12,274,890

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

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

	Report Year	Age Groups: Under 18	Age Groups: Over 65	Total Population	Number of Counties	Number of High $PM_{2.5}$ Days: Orange	Red	Purple	Maroon
Grade A (0.0)	2004	(2)	2,602,983	20,387,885	177	0	0	0	0
	2005	5,720,170	3,216,121	23,463,883	185	0	0	0	0
	2006	7,839,172	4,324,071	32,447,762	218	0	0	0	0
	2007	2,859,856	1,582,448	11,752,625	80	0	0	0	0
	2008	3,221,928	1,816,035	13,338,408	88	0	0	0	0
Grade B (0.3-0.9)	2004	(2)	4,618,540	37,207,266	185	224	28	0	0
	2005	9,988,540	4,646,290	39,108,293	194	254	18	0	0
	2006	10,419,050	4,845,683	41,426,762	198	252	17	1	0
	2007	5,606,667	3,195,860	23,494,442	149	213	2	0	0
	2008	6,283,211	3,414,159	26,047,545	134	196	4	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
	2006	11,841,092	5,475,538	46,848,907	104	371	37	1	0
	2007	10,022,611	4,571,794	39,966,818	166	716	4	0	0
	2008	12,210,786	5,944,519	49,614,525	183	784	9	2	0
Grade D (2.1-3.2)	2004	(2)	2,718,105	23,768,590	51	337	34	1	0
	2005	7,319,930	3,358,629	29,187,894	59	381	49	1	0
	2006	4,654,292	2,225,319	18,973,903	37	249	27	0	0
	2007	8,972,131	4,026,457	35,070,995	87	651	23	1	0
	2008	8,273,338	3,596,014	32,165,224	74	562	12	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
	2006	16,788,579	7,377,704	64,324,359	71	1,773	236	5	0
	2007	23,879,579	10,965,349	93,704,219	137	3,589	186	2	0
	2008	20,628,539	9,453,874	81,460,730	112	2,876	157	3	6
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
	2006	54,396,663	25,587,775	215,558,018	718	2,645	317	7	0
	2007	54,686,116	25,874,255	217,389,252	718	5,169	215	3	0
	2008	53,147,263	25,460,763	213,024,419	681	4,418	182	6	6

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

		Chronic Diseases						Age Groups			
	Report Year	Adult Asthma	Pediatric Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes	Under 18	Over 65	Total Population	Number of Counties
Pass	2004	6,221,496	2,374,312	3,719,521	1,268,996	23,779,701	(1)	(2)	13,359,480	112,896,625	396
	2005	6,841,000	2,594,982	3,615,962	1,306,929	29,641,691	5,887,389	30,493,216	14,392,539	120,845,855	435
	2006	8,071,754	2,830,224	4,201,235	1,656,530	33,107,960	6,996,832	33,414,601	16,084,169	133,680,848	467
	2007	8,179,468	3,041,301	4,233,660	1,801,792	32,144,480	7,650,058	34,171,923	16,688,256	137,594,967	455
	2008	8,603,999	3,183,397	4,510,181	1,935,261	35,492,146	8,142,404	34,303,851	17,064,455	139,570,176	460
Fail	2004	3,564,838	1,430,102	2,147,177	720,826	13,569,611	(1)	(2)	7,597,861	66,207,360	120
	2005	3,466,484	1,282,823	1,717,548	610,587	13,957,208	2,763,144	15,074,296	6,737,881	58,311,751	82
	2006	3,208,987	1,173,640	1,628,006	627,882	12,672,297	2,665,505	13,856,441	6,032,060	53,054,643	68
	2007	3,091,746	1,256,707	1,642,524	685,390	12,279,896	2,928,550	14,120,305	6,273,908	54,480,556	73
	2008	2,964,275	1,206,421	1,551,525	644,038	11,962,737	2,746,838	13,000,222	5,505,897	49,771,699	58
National Population in Counties with $PM_{2.5}$ Monitors	2004	9,786,334	3,804,414	5,866,698	1,989,822	37,349,312	(1)	(2)	20,957,341	179,103,985	516
	2005	10,307,484	3,877,805	5,333,510	1,917,516	43,598,899	8,650,533	45,567,512	21,130,420	179,157,606	517
	2006	11,280,741	4,003,864	5,829,241	2,284,412	45,780,257	9,662,337	47,271,042	22,116,229	186,735,491	535
	2007	11,271,214	4,298,008	5,876,184	2,487,182	44,424,376	10,578,608	48,292,228	22,962,164	192,075,523	528
	2008	11,568,274	4,389,818	6,061,707	2,579,299	47,454,882	10,889,242	47,304,073	22,570,352	189,341,875	518

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

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

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

		Chronic Diseases			
	Report Year[1]	Adult Asthma	Pediatric Asthma	Chronic Bronchitis	Emphysema
Grade A (0.0)	2004	791,444	295,702	479,335	163,687
	2005	816,733	300,035	434,229	158,458
	2006	1,101,423	371,502	606,774	253,035
	2007	1,444,708	505,761	772,761	346,761
	2008	1,759,104	614,996	940,070	415,461
Grade B (0.3-0.9)	2004	835,492	312,162	509,065	181,520
	2005	818,571	322,006	483,003	185,875
	2006	1,065,860	384,181	580,847	232,928
	2007	1,348,081	516,736	723,870	311,496
	2008	1,783,384	659,278	956,703	419,584
Grade C (1.0-2.0)	2004	777,159	294,538	482,637	172,954
	2005	1,046,738	400,744	570,187	210,265
	2006	1,183,001	419,134	608,112	238,066
	2007	1,975,636	732,459	1,006,458	421,078
	2008	2,257,962	811,161	1,144,601	486,933
Grade D (2.1-3.2)	2004	849,726	352,390	528,588	177,904
	2005	531,289	207,069	284,197	103,901
	2006	413,923	140,501	217,638	88,754
	2007	1,683,506	593,353	848,895	363,798
	2008	1,493,588	538,647	764,719	328,216
Grade F (3.3+)	2004	7,497,712	2,917,201	4,444,370	1,502,981
	2005	8,402,314	3,118,942	4,224,519	1,502,371
	2006	8,573,183	3,052,922	4,353,739	1,686,664
	2007	5,608,752	2,293,031	2,979,685	1,233,743
	2008	5,529,099	2,224,828	2,898,572	1,204,067
National Population in Counties with Ozone Monitors	2004	11,275,592	4,343,905	6,744,494	2,305,126
	2005	12,080,816	4,498,334	6,229,914	2,245,723
	2006	12,726,163	4,497,070	6,562,587	2,576,661
	2007	12,383,917	4,760,020	6,497,821	2,748,891
	2008	13,130,903	4,961,396	6,868,903	2,926,348

(1) Data from the reports issued in 2000, 2001, 2002, and 2003 were omitted to simplify the table, but are available upon request.

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

Table 1b: (continued) *Estimated Populations at Risk from Ozone*

	Report Year[1]	Age Groups: Under 18	Age Groups: Over 65	Total Population	Number of Counties	Number of High Ozone Days: Orange	Number of High Ozone Days: Red	Number of High Ozone Days: Purple
Grade A (0.0)	2004	(2)	1,719,616	14,417,418	77	0	0	0
	2005	3,525,678	1,755,385	14,339,204	87	0	0	0
	2006	4,386,141	2,624,697	18,604,687	110	0	0	0
	2007	5,682,711	3,389,213	24,345,906	145	0	0	0
	2008	6,627,115	3,820,210	28,340,629	189	0	0	0
Grade B (0.3-0.9)	2004	(2)	2,021,935	15,211,187	56	77	0	0
	2005	3,783,850	2,198,284	15,646,414	67	97	0	0
	2006	4,535,795	2,328,379	18,337,580	81	118	1	0
	2007	5,806,019	2,927,058	23,457,531	132	173	2	0
	2008	7,104,286	3,824,068	29,271,854	150	196	1	0
Grade C (1.0-2.0)	2004	(2)	1,918,297	14,373,424	77	324	3	0
	2005	4,709,090	2,379,449	18,887,354	94	397	4	0
	2006	4,948,370	2,280,662	19,486,872	99	429	7	0
	2007	8,229,881	3,822,577	32,897,057	143	579	24	0
	2008	8,740,961	4,221,714	35,510,432	133	562	9	0
Grade D (2.1-3.2)	2004	(2)	1,861,308	16,275,763	53	420	10	0
	2005	2,433,258	1,148,216	9,502,497	54	413	10	0
	2006	1,658,808	898,495	6,797,619	42	316	11	0
	2007	6,666,892	3,377,432	27,354,130	90	635	50	0
	2008	5,804,390	2,853,013	23,592,422	75	565	23	2
Grade F (3.3+)	2004	(2)	15,701,385	136,081,799	373	9,991	1,220	95
	2005	36,650,356	16,313,879	142,743,621	353	9,403	1,319	127
	2006	36,043,999	16,036,647	140,539,448	337	7,551	1,113	101
	2007	25,764,398	11,119,853	99,006,369	163	3,713	535	64
	2008	23,974,441	10,228,563	92,548,342	133	3,301	336	28
National Population in Counties with Ozone Monitors	2004	(2)	24,393,223	205,205,712	707	10,812	1,233	95
	2005	52,859,356	24,745,650	208,721,127	723	10,310	1,333	127
	2006	53,094,168	24,922,402	209,951,406	737	8,414	1,132	101
	2007	53,483,376	25,312,854	212,433,979	744	5,100	611	64
	2008	53,463,324	25,593,024	214,263,229	746	4,624	369	30

(1) Data from the reports issued in 2000, 2001, 2002, and 2003 were omitted to simplify the table, but are available upon request.

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

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

2008 Rank[1]	Metropolitan Statistical Areas	Total Population[2]	Under 18[3]	65 and Over[3]	Pediatric Asthma[4,10]	Adult Asthma[5,10]	Chronic Bronchitis[6,10]	Emphysema[7,10]	CV Disease[8,10]	Diabetes[9,10]
1	Pittsburgh-New Castle, PA	2,462,571	518,671	422,233	48,133	167,378	88,115	42,618	748,125	170,918
2	Los Angeles-Long Beach-Riverside, CA	17,775,984	4,835,924	1,813,198	448,774	971,597	536,717	215,729	4,058,081	932,010
3	Fresno-Madera, CA	1,038,101	309,610	100,674	28,732	54,251	29,871	11,830	223,864	51,375
4	Bakersfield, CA	780,117	231,876	68,328	21,518	40,509	22,115	8,401	161,673	37,147
5	Birmingham-Hoover-Cullman, AL	1,180,206	286,314	151,406	26,570	78,466	38,808	17,023	309,601	71,022
6	Logan, UT-ID	111,156	36,010	9,036	3,342	6,384	2,934	1,064	20,881	4,786
7	Salt Lake City-Ogden-Clearfield, UT	1,632,814	492,982	139,302	45,749	94,968	46,416	17,738	340,497	78,352
8	Sacramento-Arden-Arcade-Yuba City, CA-NV	2,373,596	589,107	278,436	54,669	135,208	75,438	31,687	585,909	134,394
9	Detroit-Warren-Flint, MI	5,410,014	1,364,806	634,415	126,654	383,598	174,927	75,046	1,376,296	316,339
10	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	8,211,213	2,002,876	855,777	185,867	545,154	263,298	107,719	2,011,954	463,297
11	Eugene-Springfield, OR	337,870	69,407	47,140	6,441	26,191	11,694	5,190	93,986	21,543
12	Provo-Orem, UT	474,180	166,065	31,414	15,411	26,046	11,716	3,956	80,039	18,370
13	Chicago-Naperville-Michigan City, IL-IN-WI	9,725,317	2,531,912	1,055,954	234,961	598,142	304,377	126,077	2,343,679	538,608
13	New York-Newark-Bridgeport, NY-NJ-CT-PA	21,976,224	5,273,371	2,797,470	489,369	1,380,661	720,038	313,120	5,713,550	1,310,234
15	Cleveland-Akron-Elyria, OH	2,917,801	699,991	411,924	64,959	213,283	98,171	44,766	802,561	183,909
16	San Jose-San Francisco-Oakland, CA	7,228,948	1,683,595	846,025	156,238	424,768	237,271	100,193	1,848,665	424,827
17	Fairbanks, AK	86,754	24,238	4,871	2,249	5,879	2,463	829	16,788	3,890
18	Hanford-Corcoran, CA	146,153	40,276	10,847	3,738	7,621	4,083	1,406	28,207	6,483
19	Indianapolis-Anderson-Columbus, IN	1,984,644	516,762	221,718	47,956	123,413	62,496	26,211	484,900	111,411
19	Visalia-Porterville, CA	419,909	134,299	38,836	12,463	21,210	11,657	4,577	86,913	19,945
21	Harrisburg-Carlisle-Lebanon, PA	652,263	144,517	95,425	13,411	44,117	22,427	10,242	183,517	42,028
22	Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN	1,356,798	330,418	166,556	30,663	84,560	44,549	19,331	353,001	81,082
22	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	6,382,714	1,547,208	830,364	143,581	413,222	210,028	92,485	1,679,649	385,159
24	Modesto, CA	512,138	147,599	51,201	13,697	27,284	15,060	6,033	113,645	26,088
25	State College, PA	140,953	23,577	15,625	2,188	10,620	4,628	1,742	33,654	7,699

Notes:

(1) Cities are ranked using the highest weighted average for any county within that Metropolitan Statistical Area.

(2) **Total Population** represents the at-risk populations for all counties within the respective Combined Statistical Area or Metropolitan Statistical Area.

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

(4) **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2006 based on national rates (NHIS) applied to county population estimates (U.S. Census).

(5) **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2006 based on state rates (BRFSS) applied to county population estimates (U.S. Census).

(6) **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed in 2006, based on national rates (NHIS) applied to county population estimates (U.S. Census).

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

(8) **CV disease** estimates are for adults 18 and over who had been diagnosed in 2006, based on national rates (NHIS) applied to county population estimates (U.S. Census). CV disease includes coronary heart disease, hypertension, stroke, angina pectoris and heart attack.

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

(10) Adding across rows does not produce valid estimates, e.g., 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 $PM_{2.5}$)*

2008 Rank[1]	Metropolitan Statistical Areas	Total Population[2]	Under 18[3]	65 and Over[3]	Pediatric Asthma[4,10]	Adult Asthma[5,10]	Chronic Bronchitis[6,10]	Emphysema[7,10]	CV Disease[8,10]	Diabetes[9,10]
1	Los Angeles-Long Beach-Riverside, CA	17,775,984	4,835,924	1,813,198	448,774	971,597	536,717	215,729	4,058,081	932,010
2	Pittsburgh-New Castle, PA	2,462,571	518,671	422,233	48,133	167,378	88,115	42,618	748,125	170,918
3	Bakersfield, CA	780,117	231,876	68,328	21,518	40,509	22,115	8,401	161,673	37,147
4	Birmingham-Hoover-Cullman, AL	1,180,206	286,314	151,406	26,570	78,466	38,808	17,023	309,601	71,022
5	Visalia-Porterville, CA	419,909	134,299	38,836	12,463	21,210	11,657	4,577	86,913	19,945
6	Atlanta-Sandy Springs-Gainesville, GA-AL	5,478,667	1,460,802	448,912	135,562	320,442	165,438	62,787	1,208,473	279,015
7	Cincinnati-Middletown-Wilmington, OH-KY-IN	2,147,617	542,837	252,603	50,375	150,251	68,882	29,389	540,124	124,045
8	Fresno-Madera, CA	1,038,101	309,610	100,674	28,732	54,251	29,871	11,830	223,864	51,375
8	Hanford-Corcoran, CA	146,153	40,276	10,847	3,738	7,621	4,083	1,406	28,207	6,483
8	Detroit-Warren-Flint, MI	5,410,014	1,364,806	634,415	126,654	383,598	174,927	75,046	1,376,296	316,339
8	Cleveland-Akron-Elyria, OH	2,917,801	699,991	411,924	64,959	213,283	98,171	44,766	802,561	183,909
12	Macon-Warner Robins-Fort Valley, GA	381,641	100,009	43,991	9,281	22,375	12,064	5,129	94,386	21,677
13	St. Louis-St. Charles-Farmington, MO-IL	2,858,549	699,809	364,870	64,942	184,375	93,790	41,144	748,278	171,677
14	Weirton-Steubenville, WV-OH	125,168	25,168	23,386	2,336	9,074	4,609	2,300	39,941	9,116
14	Charleston, WV	305,526	67,146	46,708	6,231	20,358	10,733	5,025	89,231	20,445
16	Lancaster, PA	494,486	124,995	70,706	11,600	32,198	16,215	7,405	132,700	30,353
16	York-Hanover-Gettysburg, PA	517,427	117,359	70,088	10,891	34,886	17,482	7,775	140,678	32,257
18	Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN	1,356,798	330,418	166,556	30,663	84,560	44,549	19,331	353,001	81,082
19	Rome, GA	95,322	23,599	13,394	2,190	5,686	3,102	1,392	25,105	5,739
19	Huntington-Ashland, WV-KY-OH	285,475	61,696	44,337	5,725	19,430	9,906	4,596	81,889	18,725
21	Augusta-Richmond County, GA-SC	523,249	135,886	61,491	12,610	30,346	16,731	7,192	131,795	30,279
22	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	8,211,213	2,002,876	855,777	185,867	545,154	263,298	107,719	2,011,954	463,297
22	Canton-Massillon, OH	409,764	94,894	62,548	8,806	30,139	14,101	6,601	117,218	26,831
22	Greenville-Spartanburg-Anderson, SC	1,203,795	285,061	157,937	26,454	69,966	39,885	17,561	318,944	73,131
25	Columbus-Auburn-Opelika, GA-AL	437,222	110,229	47,630	10,229	27,250	13,608	5,539	103,680	23,793
25	Hagerstown-Martinsburg, MD-WV	257,619	59,104	32,516	5,485	17,135	8,455	3,619	66,436	15,228

Notes:

(1) Cities are ranked using the highest design value for any county within that Metropolitan Statistical Area.

(2) **Total Population** represents the at-risk populations for all counties within the respective Combined Statistical Area or Metropolitan Statistical Area.

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

(4) **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2006 based on national rates (NHIS) applied to county population estimates (U.S. Census).

(5) **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2006 based on state rates (BRFSS) applied to county population estimates (U.S. Census).

(6) **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed in 2006, based on national rates (NHIS) applied to county population estimates (U.S. Census).

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

(8) **CV disease** estimates are for adults 18 and over who had been diagnosed in 2006, based on national rates (NHIS) applied to county population estimates (U.S. Census). CV disease includes coronary heart disease, hypertension, stroke, angina pectoris and heart attack.

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

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

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

2008 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	17,775,984	4,835,924	1,813,198	448,774	971,597	536,717	215,729
2	Bakersfield, CA	780,117	231,876	68,328	21,518	40,509	22,115	8,401
3	Visalia-Porterville, CA	419,909	134,299	38,836	12,463	21,210	11,657	4,577
4	Houston-Baytown-Huntsville, TX	5,641,077	1,583,322	453,950	146,932	292,570	166,956	63,328
5	Fresno-Madera, CA	1,038,101	309,610	100,674	28,732	54,251	29,871	11,830
6	Sacramento--Arden-Arcade--Yuba City, CA-NV	2,373,596	589,107	278,436	54,669	135,208	75,438	31,687
7	Dallas-Fort Worth, TX	6,359,758	1,747,838	540,269	162,199	332,845	188,814	71,913
8	New York-Newark-Bridgeport, NY-NJ-CT-PA	21,976,224	5,273,371	2,797,470	489,369	1,380,661	720,038	313,120
9	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	8,211,213	2,002,876	855,777	185,867	545,154	263,298	107,719
10	Baton Rouge-Pierre Part, LA	789,986	199,274	80,926	18,493	34,841	24,710	9,962
11	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	6,382,714	1,547,208	830,364	143,581	413,222	210,028	92,485
12	Charlotte-Gastonia-Salisbury, NC-SC	2,191,604	553,784	230,924	51,391	112,281	69,215	28,368
12	San Diego-Carlsbad-San Marcos, CA	2,941,454	745,182	327,369	69,153	164,778	91,371	37,390
12	Atlanta-Sandy Springs-Gainesville, GA-AL	5,478,667	1,460,802	448,912	135,562	320,442	165,438	62,787
15	St. Louis-St. Charles-Farmington, MO-IL	2,858,549	699,809	364,870	64,942	184,375	93,790	41,144
15	Beaumont-Port Arthur, TX	379,640	94,593	50,633	8,778	21,028	12,389	5,506
17	Merced, CA	245,658	77,953	22,559	7,234	12,393	6,797	2,643
18	El Centro, CA	160,301	47,295	16,478	4,389	8,365	4,614	1,844
19	Phoenix-Mesa-Scottsdale, AZ	4,039,182	1,095,184	455,447	101,633	256,998	123,144	51,121
20	Kansas City-Overland Park-Kansas City, MO-KS	2,034,796	522,422	230,076	48,481	128,461	64,737	27,328
21	Modesto, CA	512,138	147,599	51,201	13,697	27,284	15,060	6,033
22	Birmingham-Hoover-Cullman, AL	1,180,206	286,314	151,406	26,570	78,466	38,808	17,023
23	Las Vegas-Paradise-Pahrump, NV	1,820,232	470,100	193,905	43,625	102,090	56,636	23,149
24	Chicago-Naperville-Michigan City, IL-IN-WI	9,725,317	2,531,912	1,055,954	234,961	598,142	304,377	126,077
24	Hanford-Corcoran, CA	146,153	40,276	10,847	3,738	7,621	4,083	1,406
24	Milwaukee-Racine-Waukesha, WI	1,706,077	432,931	209,494	40,176	111,371	55,367	24,147

Notes:

(1) Cities are ranked using the highest weighted average for any county within that Metropolitan Statistical Area.

(2) **Total Population** represents the at-risk populations for all counties within the respective Combined Statistical Area or Metropolitan Statistical Area.

(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 2006 based on national rates (NHIS) applied to county population estimates (U.S. Census).

(5) **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2006 based on state rates (BRFSS) applied to county population estimates (U.S. Census).

(6) **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed in 2006, based on national rates (NHIS) applied to county population estimates (U.S. Census).

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

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

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

				At-Risk Groups								High $PM_{2.5}$ Days in Unhealthy Ranges 2004-2006	
2008 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	ALLEGHENY	PA	1,223,411	260,084	208,070	24,136	82,980	43,618	21,048	369,779	84,488	62.0	F
2	RIVERSIDE	CA	2,026,803	558,015	227,387	51,784	108,629	60,147	24,481	458,324	104,810	46.7	F
3	FRESNO	CA	891,756	269,100	85,720	24,972	46,386	25,537	10,107	191,302	43,908	40.5	F
4	KERN	CA	780,117	231,876	68,328	21,518	40,509	22,115	8,401	161,673	37,147	40.2	F
5	LOS ANGELES	CA	9,948,081	2,680,206	1,013,531	248,723	546,345	301,816	121,319	2,282,052	524,249	35.3	F
6	JEFFERSON	AL	656,700	160,016	88,032	14,849	43,602	21,773	9,736	175,808	40,310	32.7	F
7	CACHE	UT	98,662	31,775	7,617	2,949	5,633	2,582	912	18,098	4,149	31.0	F
8	SALT LAKE	UT	978,701	290,056	82,647	26,917	57,387	28,043	10,674	205,228	47,248	28.7	F
9	SACRAMENTO	CA	1,374,724	362,210	151,043	33,613	76,326	42,383	17,447	325,142	74,607	20.5	F
10	WAYNE	MI	1,971,853	540,672	229,421	50,174	135,600	61,865	26,673	488,251	112,146	17.0	F
11	BALTIMORE CITY	MD	631,366	156,522	76,639	14,525	41,752	20,297	8,682	159,419	36,569	16.7	F
12	LANE	OR	337,870	69,407	47,140	6,441	26,191	11,694	5,190	93,986	21,543	16.0	F
13	SAN BERNARDINO	CA	1,999,332	594,264	162,012	55,148	104,080	56,618	21,114	409,388	94,247	15.5	F
14	ORANGE	CA	3,002,048	790,483	323,452	73,357	167,648	93,117	38,360	714,617	164,166	15.0	F
15	UTAH	UT	464,760	162,860	30,491	15,113	25,529	11,464	3,855	78,138	17,935	13.8	F
16	COOK	IL	5,288,655	1,357,756	617,749	126,000	325,805	167,028	70,605	1,302,314	298,808	13.7	F
16	UNION	NJ	531,088	133,705	66,633	12,408	30,347	17,246	7,544	137,345	31,515	13.7	F
18	CUYAHOGA	OH	1,314,241	320,716	198,458	29,762	95,075	44,424	20,803	369,393	84,525	13.3	F
19	SANTA CLARA	CA	1,731,281	431,737	181,904	40,065	98,498	54,554	22,180	415,324	95,503	13.0	F
20	KINGS	CA	146,153	40,276	10,847	3,738	7,621	4,083	1,406	28,207	6,483	11.0	F
21	MARION	IN	865,504	232,607	94,263	21,586	53,195	26,791	11,140	206,781	47,503	10.7	F
21	NEW HAVEN	CT	845,244	195,321	115,929	18,126	59,858	28,275	12,590	227,710	52,161	10.7	F
21	TULARE	CA	419,909	134,299	38,836	12,463	21,210	11,657	4,577	86,913	19,945	10.7	F
21	WASHINGTON	PA	206,432	42,415	35,223	3,936	14,134	7,418	3,571	62,792	14,348	10.7	F
25	CUMBERLAND	PA	226,117	46,055	33,969	4,274	15,696	7,893	3,588	64,400	14,736	10.3	F

Notes:

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

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

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

(4) **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2006 based on national rates (NHIS) applied to county population estimates (U.S. Census).

(5) **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2006 based on state rates (BRFSS) applied to county population estimates (U.S. Census).

(6) **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed in 2006, based on national rates (NHIS) applied to county population estimates (U.S. Census).

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

(8) **CV disease** estimates are for adults 18 and over who had been diagnosed in 2006, based on national rates (NHIS) applied to county population estimates (U.S. Census). CV disease includes coronary heart disease, hypertension, stroke, angina pectoris and heart attack.

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

(10) Adding across rows does not produce valid estimates, e.g., 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, maroon) in each year (2004-2006), multiplying the total in each range by the assigned standard weights (i.e., 1 for orange, 1.5 for red, 2.0 for purple, 2.5 for maroon), and calculating the average.

(12) **Grade** is 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, 2004-2006	
2008 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	2,026,803	558,015	227,387	51,784	108,629	60,147	24,481	458,324	104,810	20.6	FAIL
2	ALLEGHENY	PA	1,223,411	260,084	208,070	24,136	82,980	43,618	21,048	369,779	84,488	20.4	FAIL
3	SAN BERNARDINO	CA	1,999,332	594,264	162,012	55,148	104,080	56,618	21,114	409,388	94,247	19.4	FAIL
4	KERN	CA	780,117	231,876	68,328	21,518	40,509	22,115	8,401	161,673	37,147	18.9	FAIL
5	JEFFERSON	AL	656,700	160,016	88,032	14,849	43,602	21,773	9,736	175,808	40,310	18.6	FAIL
6	TULARE	CA	419,909	134,299	38,836	12,463	21,210	11,657	4,577	86,913	19,945	18.2	FAIL
7	LOS ANGELES	CA	9,948,081	2,680,206	1,013,531	248,723	546,345	301,816	121,319	2,282,052	524,249	17.9	FAIL
8	FULTON	GA	960,009	242,854	77,072	22,537	57,171	29,712	11,266	216,904	50,154	17.6	FAIL
9	HAMILTON	OH	822,596	206,309	110,796	19,145	59,408	27,026	12,134	218,783	50,142	17.4	FAIL
10	FRESNO	CA	891,756	269,100	85,720	24,972	46,386	25,537	10,107	191,302	43,908	17.2	FAIL
10	KINGS	CA	146,153	40,276	10,847	3,738	7,621	4,083	1,406	28,207	6,483	17.2	FAIL
10	WAYNE	MI	1,971,853	540,672	229,421	50,174	135,600	61,865	26,673	488,251	112,146	17.2	FAIL
10	CUYAHOGA	OH	1,314,241	320,716	198,458	29,762	95,075	44,424	20,803	369,393	84,525	17.2	FAIL
14	BIBB	GA	154,903	42,130	19,712	3,910	8,948	4,905	2,172	39,372	9,024	16.8	FAIL
15	CLAYTON	GA	271,240	81,630	18,080	7,575	15,129	7,606	2,714	53,602	12,391	16.7	FAIL
16	MADISON	IL	265,303	61,579	36,877	5,715	16,877	8,840	3,944	71,281	16,316	16.6	FAIL
17	GWINNETT	GA	757,104	215,360	44,825	19,985	43,263	21,850	7,657	152,370	35,344	16.4	FAIL
17	BROOKE	WV	24,132	4,668	4,563	433	1,671	897	448	7,781	1,776	16.4	FAIL
17	KANAWHA	WV	192,419	41,265	31,648	3,829	12,938	6,878	3,302	58,111	13,298	16.4	FAIL
20	JEFFERSON	OH	70,125	14,124	13,077	1,311	5,294	2,573	1,281	22,267	5,081	16.3	FAIL
20	BEAVER	PA	175,736	36,819	31,854	3,417	11,912	6,369	3,151	54,876	12,527	16.3	FAIL
20	LANCASTER	PA	494,486	124,995	70,706	11,600	32,198	16,215	7,405	132,700	30,353	16.3	FAIL
20	YORK	PA	416,322	94,921	56,154	8,809	27,996	14,080	6,270	113,393	26,009	16.3	FAIL
24	CLARK	IN	103,569	24,373	12,865	2,262	6,644	3,413	1,473	26,951	6,186	16.2	FAIL
25	COBB	GA	679,325	179,373	54,874	16,646	39,849	20,858	8,002	153,327	35,459	16.1	FAIL
25	FLOYD	GA	95,322	23,599	13,394	2,190	5,686	3,102	1,392	25,105	5,739	16.1	FAIL
25	CABELL	WV	93,904	19,357	15,251	1,796	6,347	3,279	1,528	27,186	6,206	16.1	FAIL

Notes:

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

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

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

(4) **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2006 based on national rates (NHIS) applied to county population estimates (U.S. Census).

(5) **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2006 based on state rates (BRFSS) applied to county population estimates (U.S. Census).

(6) **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed in 2006, based on national rates (NHIS) applied to county population estimates (U.S. Census).

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

(8) **CV disease** estimates are for adults 18 and over who had been diagnosed in 2006, based on national rates (NHIS) applied to county population estimates (U.S. Census). CV disease includes coronary heart disease, hypertension, stroke, angina pectoris and heart attack.

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

(10) Adding across rows does not produce valid estimates, e.g., 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

(12) **Grades** are based on EPA's determination of meeting or failure to meet the NAAQS for annual $PM_{2.5}$ levels during 2004-2006. Counties meeting the NAAQS received grades of Pass; counties not meeting the NAAQS received grades of Fail.

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

			At-Risk Groups							High Ozone Days in Unhealthy Ranges 2004-2006	
2008 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	1,999,332	594,264	162,012	55,148	104,080	56,618	21,114	90.3	F
2	KERN	CA	780,117	231,876	68,328	21,518	40,509	22,115	8,401	83.3	F
3	RIVERSIDE	CA	2,026,803	558,015	227,387	51,784	108,629	60,147	24,481	76.8	F
4	TULARE	CA	419,909	134,299	38,836	12,463	21,210	11,657	4,577	67.8	F
5	LOS ANGELES	CA	9,948,081	2,680,206	1,013,531	248,723	546,345	301,816	121,319	64.7	F
6	HARRIS	TX	3,886,207	1,124,974	297,691	104,398	198,772	113,022	42,306	36.0	F
7	FRESNO	CA	891,756	269,100	85,720	24,972	46,386	25,537	10,107	34.0	F
8	PLACER	CA	326,242	71,679	46,616	6,652	19,423	10,983	4,892	25.2	F
9	EL DORADO	CA	178,066	39,130	20,011	3,631	10,832	6,057	2,566	22.7	F
10	TARRANT	TX	1,671,295	466,165	139,685	43,260	86,968	49,475	18,858	22.0	F
11	SACRAMENTO	CA	1,374,724	362,210	151,043	33,613	76,326	42,383	17,447	21.5	F
12	NEVADA	CA	98,764	18,649	16,844	1,731	6,355	3,670	1,771	20.7	F
13	DENTON	TX	584,238	156,494	31,916	14,523	30,400	16,817	5,601	16.5	F
14	BRAZORIA	TX	287,898	78,398	25,582	7,275	15,157	8,681	3,379	15.8	F
15	VENTURA	CA	799,720	212,956	86,816	19,762	44,895	25,020	10,456	15.0	F
16	DALLAS	TX	2,345,815	670,778	195,320	62,248	120,807	68,194	25,789	13.0	F
17	FAIRFIELD	CT	900,440	226,859	116,628	21,053	62,135	29,651	13,225	12.2	F
18	HARFORD	MD	241,402	60,433	26,413	5,608	15,951	7,777	3,263	11.2	F
19	FAIRFAX	VA	1,010,443	253,542	92,711	23,529	63,006	32,930	13,465	10.8	F
19	EAST BATON ROUGE PARISH	LA	429,073	107,217	45,592	9,950	18,974	13,504	5,503	10.8	F
21	COLLIN	TX	698,851	190,388	45,215	17,668	36,347	20,401	7,191	10.7	F
22	OCEAN	NJ	562,335	127,136	116,577	11,798	33,026	19,734	10,171	10.2	F
23	CAMDEN	NJ	517,001	129,114	62,724	11,982	29,648	16,725	7,211	10.0	F
24	ROWAN	NC	136,254	32,437	19,049	3,010	7,036	4,534	2,040	9.0	F
24	SAN DIEGO	CA	2,941,454	745,182	327,369	69,153	164,778	91,371	37,390	9.0	F
24	FULTON	GA	960,009	242,854	77,072	22,537	57,171	29,712	11,266	9.0	F

Notes:

(1) Counties are ranked by weighted average. See note 10 below.

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

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

(4) **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2006 based on national rates (NHIS) applied to county population estimates (U.S. Census).

(5) **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2006 based on state rates (BRFSS) applied to county population estimates (U.S. Census).

(6) **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed in 2006, based on national rates (NHIS) applied to county population estimates (U.S. Census).

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

(8) Adding across rows does not produce valid estimates, e.g., 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 (2004-2006), 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) **Grade** is 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*

			24-HOUR		ANNUAL	
County	**ST[1]**	**Metropolitan Statistical Area**	WGT. AVG.[2]	GRADE[3]	DESIGN VALUE[4]	PASS/FAIL[5]
FAIRBANKS NORTH STAR BOROUGH	AK	Fairbanks, AK	12.7	F		INC
JUNEAU BOROUGH	AK	Juneau, AK	1.7	C	7.8	PASS
JEFFERSON	AL	Birmingham-Hoover-Cullman, AL	32.7	F	18.6	FAIL
PULASKI	AR	Little Rock-North Little Rock-Pine Bluff, AR	6.0	F	14.0	PASS
MARICOPA	AZ	Phoenix-Mesa-Scottsdale, AZ	2.8	D	12.5	PASS
SANTA CRUZ	AZ	Nogales, AZ	1.8	C	13.4	PASS
RIVERSIDE	CA	Los Angeles-Long Beach-Riverside, CA	46.7	F	20.6	FAIL
ADAMS	CO	Denver-Aurora-Boulder, CO	0.7	B	9.9	PASS
DENVER	CO	Denver-Aurora-Boulder, CO	3.7	F	9.1	PASS
FAIRFIELD	CT	New York-Newark-Bridgeport, NY-NJ-CT-PA	4.7	F	13.2	PASS
NEW HAVEN	CT	New York-Newark-Bridgeport, NY-NJ-CT-PA	10.7	F	13.1	PASS
DISTRICT OFLUMBIA	DC	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	9.5	F	14.5	PASS
NEW CASTLE	DE	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	9.0	F	14.8	PASS
ESCAMBIA	FL	Pensacola-Ferry Pass-Brent, FL	3.7	F	11.9	PASS
LEON	FL	Tallahassee, FL	0.7	B	12.8	PASS
FULTON	GA	Atlanta-Sandy Springs-Gainesville, GA-AL	7.0	F	17.6	FAIL
HONOLULU	HI	Honolulu, HI	2.2	D	4.9	PASS
MUSCATINE	IA	Muscatine, IA	2.7	D	12.5	PASS
SCOTT	IA	Davenport-Moline-Rock Island, IA-IL	5.0	F	11.5	PASS
FRANKLIN	ID	Logan, UT-ID	9.0	F		INC
SHOSHONE	ID		3.0	D	12.1	PASS
COOK	IL	Chicago-Naperville-Michigan City, IL-IN-WI	13.7	F	15.6	FAIL
MADISON	IL	St. Louis-St. Charles-Farmington, MO-IL	7.3	F	16.6	FAIL
CLARK	IN	Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN	3.0	D	16.2	FAIL
MARION	IN	Indianapolis-Anderson-Columbus, IN	10.7	F	15.7	FAIL
WYANDOTTE	KS	Kansas City-Overland Park-Kansas City, MO-KS	2.0	C	12.5	PASS
JEFFERSON	KY	Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN	10.0	F	15.4	FAIL
EAST BATON ROUGE PARISH	LA	Baton Rouge-Pierre Part, LA	2.3	D	13.6	PASS
JEFFERSON PARISH	LA	New Orleans-Metairie-Bogalusa, LA	2.7	D	11.7	PASS
WEST BATON ROUGE PARISH	LA	Baton Rouge-Pierre Part, LA	1.3	C	13.6	PASS
SUFFOLK	MA	Boston-Worcester-Manchester, MA-RI-NH	3.7	F	13.1	PASS
BALTIMORE CITY	MD	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	16.7	F	15.9	FAIL
WAYNE	MI	Detroit-Warren-Flint, MI	17.0	F	17.2	FAIL
RAMSEY	MN	Minneapolis-St. Paul-St. Cloud, MN-WI	1.5	C	11.2	PASS
ST LOUIS CITY	MO	St. Louis-St. Charles-Farmington, MO-IL	8.0	F	14.4	PASS
HARRISON	MS	Gulfport-Biloxi-Pascagoula, MS	4.3	F	12.3	PASS
JONES	MS	Laurel, MS	0.3	B	14.2	PASS
LINCOLN	MT		6.2	F	15.0	PASS
CATAWBA	NC	Hickory-Lenoir-Morganton, NC	2.3	D	15.4	FAIL
MECKLENBURG	NC	Charlotte-Gastonia-Salisbury, NC-SC	5.0	F	14.9	PASS
DOUGLAS	NE	Omaha-Council Bluffs-Fremont, NE-IA	3.0	D	9.8	PASS
CHESHIRE	NH	Keene, NH	0.0	A	11.5	PASS
HILLSBOROUGH	NH	Boston-Worcester-Manchester, MA-RI-NH	1.0	C		INC
UNION	NJ	New York-Newark-Bridgeport, NY-NJ-CT-PA	13.7	F	14.8	PASS
DONA ANA	NM	Las Cruces, NM	2.0	C	9.8	PASS
CLARK	NV	Las Vegas-Paradise-Pahrump, NV	1.0	C	8.3	PASS
WASHOE	NV	Reno-Sparks-Fernley, NV	1.3	C	8.1	PASS
NEW YORK	NY	New York-Newark-Bridgeport, NY-NJ-CT-PA	5.0	F	15.7	FAIL
BRONX	NY	New York-Newark-Bridgeport, NY-NJ-CT-PA	9.7	F	15.1	FAIL
CUYAHOGA	OH	Cleveland-Akron-Elyria, OH	13.3	F	17.2	FAIL
HAMILTON	OH	Cincinnati-Middletown-Wilmington, OH-KY-IN	7.0	F	17.4	FAIL
MUSKOGEE	OK	Muskogee, OK	0.7	B	11.6	PASS
SEQUOYAH	OK	Fort Smith, AR-OK	1.3	C		INC
TULSA	OK	Tulsa-Bartlesville, OK	1.3	C	11.0	PASS

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

			24-HOUR		ANNUAL	
County	**ST**[1]	**Metropolitan Statistical Area**	WGT. AVG.[2]	GRADE[3]	DESIGN VALUE[4]	PASS/FAIL[5]
LANE	OR	Eugene-Springfield, OR	16.0	F	12.0	PASS
ALLEGHENY	PA	Pittsburgh-New Castle, PA	62.0	F	20.4	FAIL
PROVIDENCE	RI	Boston-Worcester-Manchester, MA-RI-NH	2.3	D	12.0	PASS
GREENVILLE	SC	Greenville-Spartanburg-Anderson, SC	5.0	F	15.9	FAIL
KNOX	TN	Knoxville-Sevierville-La Follette, TN	4.3	F	15.6	FAIL
SHELBY	TN	Memphis, TN-MS-AR	6.3	F	13.6	PASS
HARRIS	TX	Houston-Baytown-Huntsville, TX	2.3	D	15.4	FAIL
EL PASO	TX	El Paso, TX	3.0	D		INC
CACHE	UT	Logan, UT-ID	31.0	F	12.2	PASS
FAIRFAX	VA	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	6.7	F	13.9	PASS
ROANOKE CITY	VA	Roanoke, VA	1.3	C	14.3	PASS
RUTLAND	VT	Rutland, VT	1.3	C	11.1	PASS
CHITTENDEN	VT	Burlington-South Burlington, VT	1.7	C	9.2	PASS
PIERCE	WA	Seattle-Tacoma-Olympia, WA	4.8	F	10.6	PASS
WAUKESHA	WI	Milwaukee-Racine-Waukesha, WI	4.3	F	13.9	PASS
MILWAUKEE	WI	Milwaukee-Racine-Waukesha, WI	5.3	F	13.5	PASS
BROOKE	WV	Weirton-Steubenville, WV-OH	8.0	F	16.4	FAIL
KANAWHA	WV	Charleston, WV	6.0	F	16.4	FAIL
SHERIDAN	WY	Sheridan, WY	2.0	C	9.7	PASS

Notes:

(1) States were not included if all monitored counties got a grade of B or better for the 24-hour standard and a Passing grade for the annual standard.

(2) The **Weighted Average** was derived by counting the number of days in each unhealthful range (orange, red, purple, maroon) in each year (2004-2006), multiplying the total in each range by the assigned standard weights (i.e., 1 for orange, 1.5 for red, 2.0 for purple, 2.5 for maroon), 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

(5) Grades are based on EPA's determination of meeting or failure to meet the NAAQS for annual $PM_{2.5}$ levels during 2004-2006. Counties meeting the NAAQS received grades of Pass; counties not meeting received grades of Fail. "INC" indicates incomplete monitoring of data.

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

County	ST[1]	Metropolitan Statistical Area	OZONE WGT. AVG.[2]	OZONE GRADE[3]
JEFFERSON	AL	Birmingham-Hoover-Cullman, AL	7.5	F
CRITTENDEN	AR	Memphis, TN-MS-AR	4.2	F
MARICOPA	AZ	Phoenix-Mesa-Scottsdale, AZ	8.0	F
SAN BERNARDINO	CA	Los Angeles-Long Beach-Riverside, CA	90.3	F
JEFFERSON	CO	Denver-Aurora-Boulder, CO	2.7	D
FAIRFIELD	CT	New York-Newark-Bridgeport, NY-NJ-CT-PA	12.2	F
DISTRICT OFLUMBIA	DC	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	6.0	F
NEW CASTLE	DE	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	4.5	F
SUSSEX	DE	Seaford, DE	4.5	F
ESCAMBIA	FL	Pensacola-Ferry Pass-Brent, FL	2.3	D
HILLSBOROUGH	FL	Tampa-St. Petersburg-Clearwater, FL	2.3	D
FULTON	GA	Atlanta-Sandy Springs-Gainesville, GA-AL	9.0	F
COOK	IL	Chicago-Naperville-Michigan City, IL-IN-WI	5.0	F
LAKE	IN	Chicago-Naperville-Michigan City, IL-IN-WI	3.0	D
WYANDOTTE	KS	Kansas City-Overland Park-Kansas City, MO-KS	1.5	C
CAMPBELL	KY	Cincinnati-Middletown-Wilmington, OH-KY-IN	3.2	D
EAST BATON ROUGE PARISH	LA	Baton Rouge-Pierre Part, LA	10.8	F
HAMPSHIRE	MA	Springfield, MA	5.2	F
HARFORD	MD	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	11.2	F
HANCOCK	ME		1.7	C
ALLEGAN	MI	Grand Rapids-Muskegon-Holland, MI	5.8	F
ST CHARLES	MO	St. Louis-St. Charles-Farmington, MO-IL	8.7	F
DESOTO	MS	Memphis, TN-MS-AR	2.7	D
HARRISON	MS	Gulfport-Biloxi-Pascagoula, MS	2.7	D
ROWAN	NC	Charlotte-Gastonia-Salisbury, NC-SC	9.0	F
HILLSBOROUGH	NH	Boston-Worcester-Manchester, MA-RI-NH	3.0	D
OCEAN	NJ	New York-Newark-Bridgeport, NY-NJ-CT-PA	10.2	F
CLARK	NV	Las Vegas-Paradise-Pahrump, NV	6.8	F
RICHMOND	NY	New York-Newark-Bridgeport, NY-NJ-CT-PA	6.3	F
LAKE	OH	Cleveland-Akron-Elyria, OH	5.2	F
OKLAHOMA	OK	Oklahoma City-Shawnee, OK	4.3	F
TULSA	OK	Tulsa-Bartlesville, OK	4.3	F
PHILADELPHIA	PA	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	6.3	F
WASHINGTON	RI	Boston-Worcester-Manchester, MA-RI-NH	4.5	F
RICHLAND	SC	Columbia-Newberry, SC	4.3	F
BLOUNT	TN	Knoxville-Sevierville-La Follette, TN	5.0	F
HARRIS	TX	Houston-Baytown-Huntsville, TX	36.0	F
DAVIS	UT	Salt Lake City-Ogden-Clearfield, UT	3.5	F
FAIRFAX	VA	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	10.8	F
KING	WA	Seattle-Tacoma-Olympia, WA	2.0	C
OZAUKEE	WI	Milwaukee-Waukesha-West Allis, WI	6.0	F
KENOSHA	WI	Chicago-Naperville-Michigan City, IL-IN-WI	6.0	F
OHIO	WV	Wheeling, WV-OH	2.3	D

Notes:

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

(2) The **Weighted Average** was derived by counting the number of days in each unhealthful range (orange, red, purple) in each year (2004-2006), 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) **Grade** is 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
Alexandria, LA	150,080
Amarillo, TX	241,515
Bismarck, ND	101,138
Brownsville-Harlingen-Raymondville, TX	408,362
Cheyenne, WY	85,384
Colorado Springs, CO	599,127
Corpus Christi-Kingsville, TX	446,565
Fargo-Wahpeton, ND-MN	210,523
Farmington, NM	126,473
Flagstaff, AZ	124,953
Fort Collins-Loveland, CO	276,253
Great Falls, MT	79,385
Longview-Marshall, TX	267,186
Midland-Odessa, TX	251,842
Pueblo, CO	152,912
Redding, CA	179,951
Salinas, CA	410,206
San Luis Obispo-Paso Robles, CA	257,005
Santa Barbara-Santa Maria-Goleta, CA	400,335
Santa Fe-Espanola, NM	183,356
Sioux Falls, SD	212,911
Tucson, AZ	946,362
Valdosta, GA	126,305

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

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

Rank[2]	Design Value[3]	Metropolitan Statistical Area	Population
1	4.5	Cheyenne, WY	85,384
2	4.7	Santa Fe-Espanola, NM	183,356
3	4.9	Honolulu, HI	909,863
4	5.3	Great Falls, MT	79,385
5	5.9	Farmington, NM	126,473
6	6.0	Tucson, AZ	946,362
7	6.5	Bismarck, ND	101,138
7	6.5	Flagstaff, AZ	124,953
9	6.7	Anchorage, AK	359,180
10	6.9	Salinas, CA	410,206
11	7.3	Fort Collins-Loveland, CO	276,253
12	7.4	Duluth, MN-WI	274,244
13	7.5	Pueblo, CO	152,912
14	7.6	Midland-Odessa, TX	251,842
15	7.7	Pocatello, ID	86,357
15	7.7	Redding, CA	179,951
17	7.8	Fargo-Wahpeton, ND-MN	210,523
17	7.8	Albuquerque, NM	816,811
19	8.0	San Luis Obispo-Paso Robles, CA	257,005
20	8.1	Reno-Sparks-Fernley, NV	451,791
20	8.1	Colorado Springs, CO	599,127
22	8.3	Las Vegas-Paradise-Pahrump, NV	1,820,232
23	8.4	Cape Coral-Fort Myers, FL	571,344
24	8.6	Boise City-Nampa, ID	567,640
24	8.6	Palm Bay-Melbourne-Titusville, FL	534,359

Notes:

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

(2) Cities are ranked by using the highest 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

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

Metropolitan Statistical Area	Population
Albuquerque, NM	816,811
Ames-Boone, IA	106,729
Appleton-Oshkosh-Neenah, WI	377,906
Austin-Round Rock, TX	1,513,565
Bangor, ME	147,180
Bellingham, WA	185,953
Bloomington, IN	178,714
Bloomington-Normal, IL	161,202
Bowling Green, KY	113,320
Brunswick, GA	100,613
Burlington-South Burlington, VT	206,007
Cape Coral-Fort Myers, FL	571,344
Carson City, NV	55,289
Cedar Rapids, IA	249,320
Champaign-Urbana, IL	216,581
Davenport-Moline-Rock Island, IA-IL	377,291
Decatur, IL	109,309
Des Moines-Newton-Pella, IA	604,626
Duluth, MN-WI	274,244
Elmira, NY	88,641
Eugene-Springfield, OR	337,870
Fargo-Wahpeton, ND-MN	210,523
Florence-Muscle Shoals, AL	142,657
Gadsden, AL	103,362
Gainesville, FL	243,985
Hickory-Lenoir-Morganton, NC	359,856
Honolulu, HI	909,863

Metropolitan Statistical Area	Population
Lafayette-Frankfort, IN	219,962
Laredo, TX	231,470
Lexington-Fayette--Frankfort--Richmond, KY	645,006
Lincoln, NE	283,970
Logan, UT-ID	111,156
Medford, OR	197,071
Montgomery-Alexander City, AL	413,802
Naples-Marco Island, FL	314,649
Ocala, FL	316,183
Omaha-Council Bluffs-Fremont, NE-IA	858,720
Peoria-Canton, IL	407,572
Port St. Lucie-Sebastian-Vero Beach, FL	522,217
Rapid City, SD	118,763
Reno-Sparks-Fernley, NV	451,791
Roanoke, VA	295,050
Rochester, MN	179,573
Rochester-Batavia-Seneca Falls, NY	1,128,989
Rockford-Freeport-Rochelle, IL	450,466
Salinas, CA	410,206
Savannah-Hinesville-Fort Stewart, GA	394,036
Sioux Falls, SD	212,911
Spokane, WA	446,706
Springfield, IL	206,112
Utica-Rome, NY	297,286
Waterloo-Cedar Falls, IA	162,263
Wilmington, NC	326,166
Yuma, AZ	187,555

Note:

(1) This list represents cities with no monitored ozone air pollution in unhealthful ranges using the Air Quality Index based on the 1997 National Ambient Air Quality Standard of 0.08 ppm..

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

County	ST	MSAs and Respective CMSA[2]	County	ST	MSAs and Respective CMSA[2]
BALDWIN	AL	Mobile-Daphne-Fairhope, AL	CASS	MO	Kansas City-Overland Park-Kansas City, MO-KS
POLK	AR		CEDAR	MO	
COCHISE	AZ	Sierra Vista-Douglas, AZ	CASCADE	MT	Great Falls, MT
COCONINO	AZ	Flagstaff, AZ	SANDERS	MT	
GILA	AZ	Payson, AZ	CHATHAM	NC	Raleigh-Durham-Cary, NC
PIMA	AZ	Tucson, AZ	DUPLIN	NC	
PINAL	AZ	Phoenix-Mesa-Scottsdale, AZ	HAYWOOD	NC	Asheville-Brevard, NC
CALAVERAS	CA		JACKSON	NC	
HUMBOLDT	CA	Eureka-Arcata-Fortuna, CA	MITCHELL	NC	
LAKE	CA	Clearlake, CA	SWAIN	NC	
MENDOCINO	CA	Ukiah, CA	BILLINGS	ND	Dickinson, ND
MONTEREY	CA	Salinas, CA	BURLEIGH	ND	Bismarck, ND
NEVADA	CA	Sacramento-Arden-Arcade-Yuba City, CA-NV	CASS	ND	Fargo-Wahpeton, ND-MN
SAN LUIS OBISPO	CA	San Luis Obispo-Paso Robles, CA	MC KENZIE	ND	
SANTA BARBARA	CA	Santa Barbara-Santa Maria-Goleta, CA	MERCER	ND	
SANTA CRUZ	CA	San Jose-San Francisco-Oakland, CA	HALL	NE	Grand Island, NE
SHASTA	CA	Redding, CA	SCOTTS BLUFF	NE	Scottsbluff, NE
ARCHULETA	CO		CHESHIRE	NH	Keene, NH
BOULDER	CO	Denver-Aurora-Boulder, CO	GRAFTON	NH	Claremont-Lebanon, NH-VT
DELTA	CO		CHAVES	NM	Roswell, NM
EL PASO	CO	Colorado Springs, CO	GRANT	NM	Silver City, NM
ELBERT	CO	Denver-Aurora-Boulder, CO	LEA	NM	Hobbs, NM
GUNNISON	CO		SAN JUAN	NM	Farmington, NM
LARIMER	CO	Fort Collins-Loveland, CO	SANTA FE	NM	Santa Fe-Espanola, NM
PUEBLO	CO	Pueblo, CO	OKLAHOMA	OK	Oklahoma City-Shawnee, OK
SAN MIGUEL	CO		JOSEPHINE	OR	Grants Pass, OR
BROWARD	FL	Miami-Fort Lauderdale-Pompano Beach, FL	BROOKINGS	SD	Brookings, SD
PALM BEACH	FL	Miami-Fort Lauderdale-Pompano Beach, FL	BROWN	SD	Aberdeen, SD
HOUSTON	GA	Macon-Warner Robins-Fort Valley, GA	JACKSON	SD	
LOWNDES	GA	Valdosta, GA	MINNEHAHA	SD	Sioux Falls, SD
MAUI	HI	Kahului-Wailuku, HI	ROANE	TN	Knoxville-Sevierville-La Follette, TN
RANDOLPH	IL		BREWSTER	TX	
JOHNSON	KS	Kansas City-Overland Park-Kansas City, MO-KS	CAMERON	TX	Brownsville-Harlingen-Raymondville, TX
LINN	KS	Kansas City-Overland Park-Kansas City, MO-KS	ECTOR	TX	Midland-Odessa, TX
BELL	KY	Middlesborough, KY	HARRISON	TX	Longview-Marshall, TX
EDMONSON	KY	Bowling Green, KY	NUECES	TX	Corpus Christi-Kingsville, TX
PERRY	KY		POTTER	TX	Amarillo, TX
CONCORDIA PARISH	LA	Natchez, MS-LA	ASHLAND	WI	
RAPIDES PARISH	LA	Alexandria, LA	FOREST	WI	
CUMBERLAND	ME	Portland-Lewiston-South Portland, ME	TAYLOR	WI	
HANCOCK	ME		VILAS	WI	
KENNEBEC	ME	Augusta-Waterville, ME	CAMPBELL	WY	Gillette, WY
MISSAUKEE	MI	Cadillac, MI	CONVERSE	WY	
CASS	MN	Brainerd, MN	LARAMIE	WY	Cheyenne, WY

Note:

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

(2) MSA and CSA are terms used by the U.S. Office of Management and Budget for statistical purposes. MSA stands for Metropolitan Statistical Area. CSA stands for Combined Statistical Area, which may include multiple metropolitan statistical areas and individual counties.

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

2008 Rank[2]	County	ST	Design Value[3]
1	CONVERSE	WY	3.5
2	GALLATIN	MT	4.2
3	ELBERT	CO	4.3
4	SAN MIGUEL	CO	4.5
4	BILLINGS	ND	4.5
4	LARAMIE	WY	4.5
7	MAUI	HI	4.6
8	SANTA FE	NM	4.7
9	LAKE	CA	4.8
10	HONOLULU	HI	4.9
10	MC KENZIE	ND	4.9
12	CAMPBELL	WY	5.2
13	INYO	CA	5.3
13	CASCADE	MT	5.3
13	JACKSON	SD	5.3
16	HANCOCK	ME	5.6
17	CASS	MN	5.8
17	MERCER	ND	5.8
19	SAN JUAN	NM	5.9
20	PIMA	AZ	6.0
20	ESSEX	NY	6.0
20	ASHLAND	WI	6.0
23	MILLE LACS	MN	6.4
24	COCONINO	AZ	6.5
24	BURLEIGH	ND	6.5
24	CHAVES	NM	6.5

Notes:

(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 whether the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

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

County	ST	Metropolitan Statistical Area
YUKON-KOYUKUK BOROUGH	AK	
CLAY	AL	
COLBERT	AL	Florence-Muscle Shoals, AL
ELMORE	AL	Montgomery-Alexander City, AL
ETOWAH	AL	Gadsden, AL
LAWRENCE	AL	Huntsville-Decatur, AL
MONTGOMERY	AL	Montgomery-Alexander City, AL
MORGAN	AL	Huntsville-Decatur, AL
SUMTER	AL	
NEWTON	AR	Harrison, AR
POLK	AR	
COCHISE	AZ	Sierra Vista-Douglas, AZ
YUMA	AZ	Yuma, AZ
COLUSA	CA	
GLENN	CA	
LAKE	CA	Clearlake, CA
MARIN	CA	San Jose-San Francisco-Oakland, CA
MENDOCINO	CA	Ukiah, CA
MONTEREY	CA	Salinas, CA
NAPA	CA	San Jose-San Francisco-Oakland, CA
PLUMAS	CA	
SAN FRANCISCO	CA	San Jose-San Francisco-Oakland, CA
SAN MATEO	CA	San Jose-San Francisco-Oakland, CA
SANTA CRUZ	CA	San Jose-San Francisco-Oakland, CA
SISKIYOU	CA	
SONOMA	CA	San Jose-San Francisco-Oakland, CA
ADAMS	CO	Denver-Aurora-Boulder, CO
LA PLATA	CO	Durango, CO
MONTEZUMA	CO	
ALACHUA	FL	Gainesville, FL
BAKER	FL	Jacksonville, FL
COLLIER	FL	Naples-Marco Island, FL
COLUMBIA	FL	Lake City, FL
HIGHLANDS	FL	Sebring, FL
LEE	FL	Cape Coral-Fort Myers, FL
MARION	FL	Ocala, FL
OSCEOLA	FL	Orlando-Deltona-Daytona Beach, FL
PALM BEACH	FL	Miami-Fort Lauderdale-Pompano Beach, FL
ST. LUCIE	FL	Port St. Lucie-Sebastian-Vero Beach, FL
VOLUSIA	FL	Orlando-Deltona-Daytona Beach, FL
WAKULLA	FL	Tallahassee, FL
CHATHAM	GA	Savannah-Hinesville-Fort Stewart, GA
GLYNN	GA	Brunswick, GA
HONOLULU	HI	Honolulu, HI
BREMER	IA	Waterloo-Cedar Falls, IA
HARRISON	IA	Omaha-Council Bluffs-Fremont, NE-IA
LINN	IA	Cedar Rapids, IA
MONTGOMERY	IA	
PALO ALTO	IA	
POLK	IA	Des Moines-Newton-Pella, IA
SCOTT	IA	Davenport-Moline-Rock Island, IA-IL
STORY	IA	Ames-Boone, IA
VAN BUREN	IA	
WARREN	IA	Des Moines-Newton-Pella, IA
BUTTE	ID	
CANYON	ID	Boise City-Nampa, ID
ADAMS	IL	Quincy, IL-MO
CHAMPAIGN	IL	Champaign-Urbana, IL
CLARK	IL	
EFFINGHAM	IL	Effingham, IL
HAMILTON	IL	Mount Vernon, IL
MACON	IL	Decatur, IL
MCLEAN	IL	Bloomington-Normal, IL
PEORIA	IL	Peoria-Canton, IL
RANDOLPH	IL	
ROCK ISLAND	IL	Davenport-Moline-Rock Island, IA-IL
SANGAMON	IL	Springfield, IL
WILL	IL	Chicago-Naperville-Michigan City, IL-IN-WI
WINNEBAGO	IL	Rockford-Freeport-Rochelle, IL
CARROLL	IN	Lafayette-Frankfort, IN
GREENE	IN	Bloomington, IN
HUNTINGTON	IN	Fort Wayne-Huntington-Auburn, IN
MORGAN	IN	Indianapolis-Anderson-Columbus, IN
SHELBY	IN	Indianapolis-Anderson-Columbus, IN

Note:

(1) This list represents counties no monitored ozone air pollution in unhealthful ranges using the Air Quality Index based on the 1997 National Ambient Air Quality Standard of 0.08 ppm. .

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

County	ST	Metropolitan Statistical Area
LINN	KS	Kansas City-Overland Park-Kansas City, MO-KS
SEDGWICK	KS	Wichita-Winfield, KS
TREGO	KS	
BELL	KY	Middlesborough, KY
BOONE	KY	Cincinnati-Middletown-Wilmington, OH-KY-IN
EDMONSON	KY	Bowling Green, KY
FAYETTE	KY	Lexington-Fayette--Frankfort--Richmond, KY
HARDIN	KY	Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN
HENDERSON	KY	Evansville, IN-KY
JESSAMINE	KY	Lexington-Fayette--Frankfort--Richmond, KY
MCCRACKEN	KY	Paducah-Mayfield, KY-IL
PERRY	KY	
PIKE	KY	
PULASKI	KY	Somerset, KY
TRIGG	KY	Clarksville, TN-KY
WARREN	KY	Bowling Green, KY
CUMBERLAND	ME	Portland-Lewiston-South Portland, ME
KENNEBEC	ME	Augusta-Waterville, ME
OXFORD	ME	
PENOBSCOT	ME	Bangor, ME
CLINTON	MI	Lansing-East Lansing-Owosso, MI
OAKLAND	MI	Detroit-Warren-Flint, MI
ANOKA	MN	Minneapolis-St. Paul-St. Cloud, MN-WI
CARLTON	MN	Duluth, MN-WI
CROW WING	MN	Brainerd, MN
GOODHUE	MN	Minneapolis-St. Paul-St. Cloud, MN-WI
LAKE	MN	
OLMSTED	MN	Rochester, MN
ST LOUIS	MN	Duluth, MN-WI
STEARNS	MN	Minneapolis-St. Paul-St. Cloud, MN-WI
WASHINGTON	MN	Minneapolis-St. Paul-St. Cloud, MN-WI
ADAMS	MS	Natchez, MS-LA
BOLIVAR	MS	Cleveland, MS
LEE	MS	Tupelo, MS
FLATHEAD	MT	Kalispell, MT
ALEXANDER	NC	Hickory-Lenoir-Morganton, NC
AVERY	NC	
CALDWELL	NC	Hickory-Lenoir-Morganton, NC
CASWELL	NC	
CHATHAM	NC	Raleigh-Durham-Cary, NC
NEW HANOVER	NC	Wilmington, NC
SWAIN	NC	
BILLINGS	ND	Dickinson, ND
BURKE	ND	
CASS	ND	Fargo-Wahpeton, ND-MN
DUNN	ND	
MC KENZIE	ND	
MERCER	ND	
OLIVER	ND	
DOUGLAS	NE	Omaha-Council Bluffs-Fremont, NE-IA
LANCASTER	NE	Lincoln, NE
BELKNAP	NH	Boston-Worcester-Manchester, MA-RI-NH
CHESHIRE	NH	Keene, NH
GRAFTON	NH	Claremont-Lebanon, NH-VT
BERNALILLO	NM	Albuquerque, NM
EDDY	NM	Carlsbad-Artesia, NM
LEA	NM	Hobbs, NM
SANDOVAL	NM	Albuquerque, NM
CARSON CITY	NV	Carson City, NV
WASHOE	NV	Reno-Sparks-Fernley, NV
WHITE PINE	NV	
CHEMUNG	NY	Elmira, NY
HERKIMER	NY	Utica-Rome, NY
MADISON	NY	Syracuse-Auburn, NY
MONROE	NY	Rochester-Batavia-Seneca Falls, NY
ONEIDA	NY	Utica-Rome, NY
SCHENECTADY	NY	Albany-Schenectady-Amsterdam, NY
ULSTER	NY	New York-Newark-Bridgeport, NY-NJ-CT-PA
WAYNE	NY	Rochester-Batavia-Seneca Falls, NY
CLEVELAND	OK	Oklahoma City-Shawnee, OK
PITTSBURG	OK	McAlester, OK
COLUMBIA	OR	Portland-Vancouver-Beaverton, OR-WA
JACKSON	OR	Medford, OR
LANE	OR	Eugene-Springfield, OR

Note:

(1) This list represents counties no monitored ozone air pollution in unhealthful ranges using the Air Quality Index based on the 1997 National Ambient Air Quality Standard of 0.08 ppm. .

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

County	ST	Metropolitan Statistical Area
MULTNOMAH	OR	Portland-Vancouver-Beaverton, OR-WA
FRANKLIN	PA	Chambersburg, PA
TIOGA	PA	
AIKEN	SC	Augusta-Richmond County, GA-SC
ANDERSON	SC	Greenville-Spartanburg-Anderson, SC
BARNWELL	SC	
BERKELEY	SC	Charleston-North Charleston, SC
COLLETON	SC	Walterboro, SC
WILLIAMSBURG	SC	
JACKSON	SD	
MINNEHAHA	SD	Sioux Falls, SD
PENNINGTON	SD	Rapid City, SD
BREWSTER	TX	
HAYS	TX	Austin-Round Rock, TX
WEBB	TX	Laredo, TX
CACHE	UT	Logan, UT-ID
SAN JUAN	UT	
PAGE	VA	
ROANOKE	VA	Roanoke, VA
ROCKBRIDGE	VA	
WYTHE	VA	
CHITTENDEN	VT	Burlington-South Burlington, VT
CLALLAM	WA	Port Angeles, WA
CLARK	WA	Portland-Vancouver-Beaverton, OR-WA
KLICKITAT	WA	
SKAGIT	WA	Seattle-Tacoma-Olympia, WA
SPOKANE	WA	Spokane, WA
THURSTON	WA	Seattle-Tacoma-Olympia, WA
WHATCOM	WA	Bellingham, WA
ASHLAND	WI	
DANE	WI	Madison-Baraboo, WI
FLORENCE	WI	Iron Mountain, MI-WI
FOREST	WI	
ONEIDA	WI	
OUTAGAMIE	WI	Appleton-Oshkosh-Neenah, WI
SAUK	WI	Madison-Baraboo, WI
VILAS	WI	
WASHINGTON	WI	Milwaukee-Racine-Waukesha, WI
GREENBRIER	WV	
CAMPBELL	WY	Gillette, WY
TETON	WY	Jackson, WY-ID

Note:

(1) This list represents counties no monitored ozone air pollution in unhealthful ranges using the Air Quality Index based on the 1997 National Ambient Air Quality Standard of 0.08 ppm. .

Health Effects of Ozone and Particle Pollution

Ozone and particle pollution are the most widespread air pollutants—and among the most dangerous. Recent research has revealed new insights into how they can harm the body—including taking the lives of infants and altering the lungs of children. All in all, the evidence shows that the risks are greater than we once thought.

Two types of air pollution dominate the problem in the U.S.: ozone and particle pollution.

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 attacks lung tissue by reacting with it chemically.

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

Where Does Ozone Come From?

What you see coming out of the tailpipe on a car or a truck isn't ozone, but the raw ingredients for making ozone. Ozone is formed by chemical reactions in the atmosphere from two raw gases that do come out of tailpipes, smokestacks and many other sources. These essential raw ingredients for ozone are nitrogen oxides (NO_x) and hydrocarbons, also called volatile organic compounds (VOCs). They are produced primarily when fossil fuels like gasoline, oil or coal are burned or when some chemicals, like paints, evaporate. When NOx and VOCs come in contact with both heat and sunlight, they combine and form ozone smog. 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 formula for ozone is simple, and like any formula, the ingredients must all be present and in the right proportions to make the final product:

$$\mathbf{NO_x + VOC + Heat + Sunlight = Ozone}$$

You may have wondered why "ozone action day" warnings are sometimes followed by recommendations to avoid activities such as mowing your lawn or

refilling your gas tank during daylight hours. Lawn mower exhaust and gasoline vapors are VOCs that could turn into ozone in the heat and sun. Take away the sunlight and ozone doesn't form, so refilling your gas tank after dark is better on high ozone days. Since we can't control sunlight and heat, we must reduce the chemical raw ingredients if we want to reduce ozone.

Who is at Risk from Breathing Ozone?

Five groups of people are especially vulnerable to the effects of breathing ozone:

- children and teens
- anyone 65 and older
- people who work or exercise outdoors
- people with existing lung diseases, such as asthma and chronic obstructive pulmonary disease (also known as COPD, which includes emphysema and chronic bronchitis)
- "responders" who are otherwise healthy but for some reason react more strongly to ozone.

The impact on your health can depend on many factors, however, not just whether you are part of one of these groups. For example, the risks would be greater if ozone levels are higher, if you are breathing faster because you're working outdoors or if you spend more time outdoors.

How Ozone Pollution Harms Your Health

Scientists have studied the effects of ozone on health for decades. Hundreds of research studies have confirmed that ozone harms people at levels currently found in the United States. In the last few years, we've learned that it can also be deadly.

Breathing ozone may shorten your life. Strong evidence arrived late in 2004, when two large multi-city investigations documented that short-term exposure to ozone can shorten lives, building on numerous earlier studies. One of them 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 low, the researchers found that the risk of premature death increased with higher levels of ozone. They estimated that over 3,700 deaths annually could be attributed to a 10-parts-per-billion increase in ozone levels.[1] Another study, published the same week, looked at 23 European cities and found similar effects on mortality from short-term exposure to ozone.[2]

Confirmation came in the summer of 2005. Three groups of researchers working independently reviewed and analyzed the research around deaths associated with short-term exposures to ozone. The three teams—at Harvard, Johns Hopkins and New York University—used different approaches but all came to similar conclusions. All three studies report a small, but robust association between daily ozone

levels and increased deaths.[3] Writing a commentary on these reviews, David Bates, MD, explained how these premature deaths could occur:

> "*Ozone is capable of causing inflammation in the lung at lower concentrations than any other gas. Such an effect would be a hazard to anyone with heart failure and pulmonary congestion, and would worsen the function of anyone with advanced lung disease.*"[4]

Other immediate risks from breathing high levels of ozone. Many areas in the United States produce enough ground-level ozone during the summer months to cause health problems that can be felt right away. Immediate problems—in addition to increased risk of premature death—include:

- shortness of breath;
- chest pain when inhaling;
- wheezing and coughing;
- asthma attacks;
- increased susceptibility to respiratory infections;
- pulmonary inflammation; and
- increased need for people with lung diseases, like asthma or chronic obstructive pulmonary disease (COPD), to receive medical treatment and to go to the hospital.[5]

Breathing ozone for longer periods can alter the lungs' ability to function. Two studies published in 2005 explored ozone's ability to reduce the lung's ability to work efficiently, a term called "lung function." Each study looked at otherwise healthy groups who were exposed to ozone for long periods: outdoor postal workers in Taiwan and college freshmen who were lifelong residents of Los Angeles or the San Francisco Bay area. Both studies found that the long exposure to elevated ozone levels had decreased their lung function.[6]

Other effects of long-term exposure to ozone. Short-term exposure to ozone also appears to worsen COPD.[7] Repeated inflammation due to exposure to ozone over a period of years can lead to a chronic "stiffening" of the lungs.

Inhaling ozone may affect the heart as well as the lungs. One new study linked exposures to high ozone levels for as little as one hour to a particular type of cardiac arrhythmia that itself increases the risk of premature death and stroke.[8] A French study found that exposure to elevated ozone levels for one to two days increased the risk of heart attacks for middle-aged adults without heart disease.[9]

Breathing other pollutants in the air may make your lungs more responsive to ozone—and breathing ozone may increase your body's response to other pollutants. For example, research warns that breathing sulfur dioxide and nitrogen

oxide—two pollutants common in the eastern United States—can make the lungs react more strongly than to just breathing ozone alone. Breathing ozone may also increase the response to allergens in people with allergies.[10]

Particle Pollution

Ever look at dirty truck exhaust?

The dirty, smoky part of that stream of exhaust is made of particle pollution. More new evidence shows that the particle pollution—like that coming from the exhaust smoke—can lead to shorter lives, heart disease, lung cancer and asthma attacks and can interfere with the growth and work of the lungs.

What Is Particle Pollution?

Particle pollution refers to a mix of very tiny solid and liquid particles that are 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. You may not be able to tell when you're breathing particle pollution. Yet it is so dangerous it can shorten your life.

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

Researchers categorize particles according to size, grouping them as coarse, fine and ultrafine. Coarse particles fall between 2.5 microns and 10 microns in diameter and are called $PM_{10\text{-}2.5}$. 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[11] and are small enough to pass through the lung tissue into the blood stream, circulating like the oxygen molecules themselves. No matter what the size, particles can be harmful to your health.

Because particles are formed in so many different ways, they also can be composed of many different 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." [12] The mixtures differ between the eastern and western United States. For example, the eastern states have more sulfate particles than the west, largely due to the high levels of sulfur dioxide emitted by large, coal-fired power plants. By contrast, in Southern California, nitrate particles from motor vehicle exhaust form a larger proportion of the unhealthful mix.[13]

Where Does Particle Pollution Come From?

Particle pollution is produced through two separate processes—mechanical and chemical.

Mechanical processes break down bigger bits into smaller bits with the material remaining essentially the same, only becoming smaller. Mechanical processes primarily create coarse particles.[14] Dust storms, construction and demolition, mining operations, agriculture, and coal and oil combustion are among the activities that produce coarse particles.

By contrast, chemical processes in the atmosphere create most of the tiniest fine and ultrafine particles. Combustion sources burn fuels and emit gases. These gases can 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.[15] Burning fossil fuels in factories, power plants, steel mills, smelters, diesel- and gasoline-powered motor vehicles (cars and trucks) and equipment generate a large part of the raw materials for fine particles. So does burning wood in residential fireplaces and wood stoves or burning agricultural fields or forests.

What Can Particles Do to Your Health?

Studies showing the dangers of particle pollution are pouring in by the thousands. The new studies validate earlier research showing a strong relationship between particle pollution and illness, hospitalization and premature death.[16]

Researchers these days are exploring possible differences in health effects of the three sizes of particles and particles from different sources, such as diesel particles from trucks and buses or sulfates from coal-fired power plants. So far, the evidence remains clear that all particles from all sources are dangerous.[17]

Particle pollution can damage the body in ways similar to cigarette smoking. A recent review of the research on how particles cause harm found that the body responds to particles in similar ways to its response to cigarette smoke. These findings help explain why particle pollution can cause heart attacks and strokes.[18]

Short-term Exposure Can Be Deadly

First and foremost, short-term exposure to particle pollution can kill. Deaths can occur on the very day that particle levels are high, or within one to two months afterward. 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.[19] Particle pollution also diminishes lung function, causes greater use of asthma medications and increased rates of school absenteeism, emergency room visits and hospital admissions. Other adverse effects can be coughing, wheezing, cardiac arrhythmias and heart attacks. According to the findings from

some of the latest studies, short-term increases in particle pollution have been linked to:

- death from respiratory and cardiovascular causes, including strokes;[20,21,22,23]
- increased mortality in infants and young children;[24]
- increased numbers of heart attacks, especially among the elderly and in people with heart conditions;[25]
- inflammation of lung tissue in young, healthy adults;[26]
- increased hospitalization for cardiovascular disease, including strokes and congestive heart failure;[27,28,29]
- increased emergency room visits for patients suffering from acute respiratory ailments;[30]
- increased hospitalization for asthma among children; and[31,32,33]
- increased severity of asthma attacks in children.[34]

Year-Round Exposure

Breathing high levels of particle pollution day in and day out also can be deadly, as landmark studies in the 1990s showed conclusively.[35] Chronic exposure to particle pollution can shorten life by one to three years.[36] 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 near roads with heavy truck or trailer traffic;[37,38]
- slowed lung function growth in children and teenagers; [39,40]
- significant damage to the small airways of the lungs;[41]
- increased risk of dying from lung cancer; and[42]
- increased risk of death from cardiovascular disease.[43]

Alarmingly, the risks may be even greater than previously thought. Earlier studies of the long-term health risks of air pollution relied on estimates of the average exposure to people in the community. New evidence from studies published since 2005 suggests that those estimates may be far too low. Tracking 23,000 residents of Los Angeles and looking at data from monitors nearest to them, researchers found that the risk of premature death from fine particle pollution may be *three times higher* than previously reported.[44] New research into risks to the health of 65,000 women over age 50 found that those who lived in areas with higher levels of particle pollution faced a much greater risk of dying from heart disease than had been previously estimated. Even women who lived within the same city faced dif-

fering risks depending on the annual levels of pollution in their neighborhood. [45]

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. New research points to ever-larger groups at higher risk, including diabetics, and most recently, women over 50.[46]

Focusing on Children's Health

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

Just like the arms and legs, the largest portion of a child's lungs will grow long after he or she is born. Eighty percent of their tiny air sacs develop after birth. Those sacs, called the alveoli, are where the life-sustaining transfer of oxygen to the blood takes place. The lungs and their alveoli aren't fully grown until children become adults. [47] In addition, the body's defenses that help adults fight off infections are still developing in young bodies. [48] Children have more respiratory infections than adults, which also seems to increase their susceptibility to air pollution.[49]

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.[50]

Major Reviews Confirm Harm to Children

Two major analyses recently concluded that air pollution is especially harmful to children. They found that air pollution is so dangerous that it can even threaten children's lives.

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

- short-term and long-term decreased lung function rates and lower lung function levels, critical measures of how well the child will breathe throughout his or her life (due primarily to exposure to particle pollution and traffic-related pollution);
- worsening 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.[51]

The American Academy of Pediatrics issued a statement on the dangers of outdoor air pollution on children's health, pointing out the special differences for children.[52] The Academy reported many of the health effects cited by the WHO study, but also focused on the sources common to many children. Both the WHO monograph and the Academy statement highlighted recent studies showing how children living near highly traveled highways appear to be particularly harmed by traffic-related pollution. The Academy statement highlighted the specific concern over diesel school buses, citing a pilot study that showed children riding inside a school bus may be exposed to four times more diesel exhaust than if they were riding in a car.[53]

Research on Prenatal Exposure to Air Pollution

Several studies published in 2005 found prenatal exposure to air pollution can harm children. A study of pregnant women in four Pennsylvania counties found an increased risk of preterm births linked to chronic exposure to high levels of air pollution during the last six weeks of pregnancy.[54] A study of three low-income neighborhoods in New York City found that infants born to nonsmoking mothers faced a possible increased risk of cancer from living in areas with elevated urban area air pollutants.[55] A third study in the Czech Republic found evidence that the mother's exposure to air pollution may even alter the immune systems of the fetus.[56]

Air Pollution Linked to Increased Risk to Newborns and Infants

As the World Health Organization concluded, evidence shows that air pollution, especially particle pollution, increases the risk of infant death. Earlier this year researchers published a study looking at the infant deaths in the U.S. from 1999 to 2002. They confirmed the risk from particle pollution and found evidence that ozone may also increase the risk of sudden infant death syndrome, or SIDS.[57]

Researchers from Yale University looked at the records of over 350,000 babies born in Connecticut and Massachusetts with low birth weights to see if they could identify any relationships with outdoor air pollutants. The researchers concluded that air pollution may increase the risk of babies being born with low birth weight, even though almost all the air pollutants were at levels that were officially listed as safe by the U.S. Environmental Protection Agency.[58]

Air Pollution Linked to Asthma Attacks, New Onset of Asthma

A 2003 study followed children with asthma by having their mothers track their symptoms on a daily basis. The study found that children with asthma were particularly vulnerable to ozone even at levels then officially considered safe.[59] An accompanying editorial warned, "Air pollution is one of the most under-appreciated contributors to asthma exacerbation."[60]

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.[61]

Air Pollution Increases Risk of Underdeveloped Lungs

Another finding from the Southern California Children's Health study looked at the long-term effects of particle pollution on teenagers. Tracking 1,759 children between ages 10 and 18, researchers found that those who grew up in more polluted areas 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.[62]

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.[63] 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.[64]

Cleaning Up Pollution Can Reduce Risk to Children

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

Changes in air pollution from the reunification of Germany proved a real-life laboratory. Both East and West Germany had different levels and sources of particles. Outdoor particle levels were much higher in East Germany, where they came from factories and homes. West Germany had higher concentrations of traffic-generated particles. After reunification, emissions from the factories and homes dropped, but traffic increased. A German study explored the impact on the lungs of six-year olds from both East and West Germany. Total lung capacity improved with the lower particle levels. However, for those children living near busy roads, the increased pollution from the increased traffic kept them from benefiting from the overall cleaner air.[65]

In Switzerland, particle pollution dropped during a period in the 1990s. Researchers there tracked 9,000 children over a nine-year period, following their respiratory symptoms. After taking other factors such as family characteristics and indoor air pollution into account, the researchers noted that during the years with less pollution, the children had fewer episodes of chronic cough, bronchitis, common cold, and conjunctivitis symptoms.[66]

In this country, the 1996 Olympics in Atlanta, Georgia remains one of the most interesting cases. Atlanta is a prime example of an urban area with a history of serious ozone problems. The determined efforts of the city to reduce traffic during the Olympics succeeded in not just reducing congestion, but in improving the health of children with asthma. Concerned with an expected traffic nightmare, the city brought in more buses, more subway cars, and encouraged ridesharing and telecommuting during the Summer Olympic Games. These measures created a

prolonged period of low ozone pollution that resulted in significantly lower rates of childhood asthma events for children aged 1 to 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.[67]

Living Near Highways May Be Especially Dangerous

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

Children and teenagers are among the most vulnerable—though not the only ones at risk. A new European study found infants and young children exposed to air pollution from traffic faced a greater risk of wheezing.[68] In Southern California, a 2007 study found that air pollution can limit the capacity of the lungs in 10- to 18-year-olds who live within about one-third of a mile of a freeway. Changes such as that can reduce their capacity to breathe for the rest of their lives and increase their risk of serious lung diseases. Other recent research found that children who live near freeways had higher risk of being diagnosed with asthma.[69,70] However, children are certainly not the only ones at risk. Studies have found increased risk of premature death from living near a major highway or an urban road.[71] Another study found an increase in risk of heart attacks from being in traffic, whether driving or taking public transportation.[72]

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; and
- Reduce the use of fireplaces and wood-burning stoves.

Bottom line: Help yourself and everyone else breathe easier. Support national, state and local efforts to clean up sources of pollution. Your life and the life of someone you love may depend on it.

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Notes for all state data tables

1. **Total Population** is based on 2006 US Census and represents the at-risk populations in counties with ozone or $PM_{2.5}$ pollution monitors; it does not represent the entire state's sensitive populations.
2. Those **18 & under** and **65 & over** are vulnerable to ozone and $PM_{2.5}$. They should not be used as population denominators for disease estimates.
3. **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2006 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 2006 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 within 2006 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 within their lifetime based on national rates (NHIS) applied to county population estimates (US Census).
7. **CV disease** estimates are for adults 18 and over who had been diagnosed within 2006 based on national rates (NHIS) applied to county population estimates (US Census). CV disease includes coronary heart disease, hypertension, stroke, angina pectoris and heart attack.
8. **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).
9. Adding across rows does not produce valid estimates. For example, because of differences in the surveys used to gather the information, adding pediatric and adult asthma does not produce an accurate estimate of total population with asthma. Adding emphysema and chronic bronchitis will double count people with both diseases.
10. Changes to the county grades and monitoring from those found in the 2007 report are noted on the last page of each state's section.

ALABAMA

AT-RISK GROUPS

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BALDWIN CO	169,162	37,954	27,770	3,522	11,517	5,819	2,754	48,721	11,117
CLAY CO	13,829	2,975	2,455	276	953	489	238	4,171	951
COLBERT CO	54,766	12,184	8,863	1,131	3,738	1,910	907	16,024	3,663
DE KALB CO	68,014	16,773	9,525	1,557	4,498	2,231	1,005	18,100	4,141
ELMORE CO	75,688	18,231	8,368	1,692	5,043	2,414	992	18,498	4,249
ESCAMBIA CO	37,849	8,816	5,372	818	2,549	1,270	573	10,312	2,361
ETOWAH CO	103,362	23,830	16,303	2,211	6,982	3,540	1,665	29,517	6,745
HOUSTON CO	95,660	23,624	13,740	2,192	6,324	3,179	1,457	26,071	5,967
JACKSON CO	53,745	12,243	8,050	1,136	3,643	1,843	852	15,203	3,480
JEFFERSON CO	656,700	160,016	88,032	14,849	43,602	21,773	9,736	175,808	40,310
LAWRENCE CO	34,312	8,049	4,480	747	2,305	1,145	505	9,166	2,103
LIMESTONE CO	72,446	16,886	8,567	1,567	4,877	2,366	997	18,414	4,228
MADISON CO	304,307	73,244	37,031	6,797	20,282	9,960	4,284	78,487	18,023
MOBILE CO	404,157	107,090	49,502	9,938	26,077	12,904	5,639	102,705	23,573
MONTGOMERY CO	223,571	58,213	26,543	5,402	14,514	7,087	3,035	55,699	12,782
MORGAN CO	115,237	27,791	15,474	2,579	7,677	3,834	1,714	30,953	7,098
RUSSELL CO	50,085	12,846	6,917	1,192	3,269	1,637	743	13,339	3,055
SHELBY CO	178,182	45,658	15,589	4,237	11,632	5,548	2,166	41,215	9,519
SUMTER CO	13,606	3,560	2,052	330	882	441	205	3,652	833
TALLADEGA CO	80,271	19,064	10,924	1,769	5,373	2,681	1,200	21,660	4,965
TUSCALOOSA CO	171,159	39,270	19,083	3,644	11,574	5,486	2,228	41,741	9,580
WALKER CO	70,034	15,944	10,893	1,480	4,748	2,398	1,119	19,898	4,548
TOTALS	**3,046,142**	**744,261**	**395,533**	**69,067**	**202,058**	**99,956**	**44,013**	**799,354**	**183,291**

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BALDWIN CO	2	0	0	0.7	B	0	0	0	0.0	A	11.4	PASS
CLAY CO	0	0	0	0.0	A	3	0	0	1.0	C	13.2	PASS
COLBERT CO	0	0	0	0.0	A	2	0	0	0.7	B	12.5	PASS
DE KALB CO	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	14	PASS
ELMORE CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ESCAMBIA CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	13.2	PASS
ETOWAH CO	0	0	0	0.0	A	8	0	0	2.7	D	14.7	PASS
HOUSTON CO	*	*	*	*	*	3	0	0	1.0	C	*	INC
JACKSON CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JEFFERSON CO	21	1	0	7.5	F	98	0	0	32.7	F	18.6	FAIL
LAWRENCE CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LIMESTONE CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MADISON CO	3	0	0	1.0	C	3	0	0	1.0	C	13.7	PASS
MOBILE CO	6	0	0	2.0	C	3	1	1	2.2	D	12.5	PASS
MONTGOMERY CO	0	0	0	0.0	A	4	0	0	1.3	C	14.2	PASS
MORGAN CO	0	0	0	0.0	A	3	0	0	1.0	C	13	PASS
RUSSELL CO	1	0	0	0.3	B	8	0	0	2.7	D	15.8	FAIL
SHELBY CO	12	0	0	4.0	F	5	0	0	1.7	C	14.3	PASS
SUMTER CO	0	0	0	0.0	A	1	0	0	0.3	B	*	INC
TALLADEGA CO	1	0	0	0.3	B	5	0	0	1.7	C	*	INC
TUSCALOOSA CO	2	0	0	0.7	B	2	0	0	0.7	B	13.3	PASS
WALKER CO	DNC	DNC	DNC	DNC	DNC	4	0	0	1.3	C	13.7	PASS

Ozone
- Clay County, Colbert County, Lawrence County and Morgan County each improved their grade from a B to an A.
- Madison County's grade dropped from a B to a C.
- Shelby County's grade dropped from a D to an F.
- Talladega County now has enough data to receive a grade.

PM
- Colbert County's grade improved from a C to a B.
- Shelby County's grade improved from a D to a C.
- Sumter County and Talladega County no longer have sufficient data to grade their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

ALASKA

AT-RISK GROUPS

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	278,700	74,536	18,098	6,917	19,179	8,359	3,019	59,306	13,756
FAIRBANKS NORTH STAR BOROUGH	86,754	24,238	4,871	2,249	5,879	2,463	829	16,788	3,890
JUNEAU BOROUGH	30,737	7,367	2,304	684	2,192	1,005	391	7,444	1,730
MATANUSKA-SUSITNA BOROUGH	80,480	21,094	5,585	1,958	5,576	2,472	920	17,847	4,141
SKAGWAY-HOONAH-ANGOON REGION	3,100	646	313	60	230	110	47	857	199
YUKON-KOYUKUK REGION	5,844	1,633	489	152	395	182	73	1,377	319
TOTALS	**485,615**	**129,514**	**31,660**	**12,019**	**33,450**	**14,592**	**5,278**	**103,618**	**24,035**

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HIGH OZONE DAYS 2004-2006

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

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour						Annual	
County	Orange	Red	Purple	Maroon	Wgt. Avg	Grade	Design Value	Pass/ Fail
ANCHORAGE	2	0	0	0	0.7	B	6.7	PASS
FAIRBANKS NORTH STAR BOROUGH	11	4	3	6	12.7	F	*	INC
JUNEAU BOROUGH	5	0	0	0	1.7	C	7.8	PASS
MATANUSKA-SUSITNA BOROUGH	5	0	0	0	1.7	C	*	INC
SKAGWAY-HOONAH-ANGOON REGION	*	*	*	*	*	*	*	INC
YUKON-KOYUKUK REGION	DNC	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Matanuska-Susitna Borough's grade dropped from a B to a C.
- Juneau Borough now has sufficient data to grade their annual levels.
- Yukon-Koyukuk Region no longer has PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

ARIZONA

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
COCHISE CO	127,757	32,172	21,138	2,986	8,486	4,312	2,090	36,659	8,366
COCONINO CO	124,953	33,376	9,784	3,097	8,087	3,786	1,430	27,578	6,377
GILA CO	52,209	12,385	10,965	1,149	3,548	1,871	992	16,874	3,834
LA PAZ CO	20,256	3,868	6,147	359	1,444	803	481	7,873	1,773
MARICOPA CO	3,768,123	1,028,887	417,686	95,481	239,203	114,473	47,309	880,310	201,830
NAVAJO CO	111,399	34,608	12,561	3,212	6,743	3,268	1,397	25,657	5,881
PIMA CO	946,362	228,339	138,162	21,190	63,145	31,247	14,201	254,947	58,255
PINAL CO	271,059	66,297	37,761	6,152	17,794	8,671	3,812	69,296	15,813
SANTA CRUZ CO	43,080	13,677	5,128	1,269	2,603	1,279	566	10,265	2,353
YAVAPAI CO	208,014	41,301	45,498	3,833	14,763	7,741	4,064	69,377	15,752
YUMA CO	187,555	54,913	33,314	5,096	11,497	5,850	2,906	50,560	11,456
TOTALS	**5,860,767**	**1,549,823**	**738,144**	**143,824**	**377,316**	**183,301**	**79,249**	**1,449,396**	**331,688**

American Lung Association of Arizona
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Phoenix, AZ 85003-1213
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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
COCHISE CO	0	0	0	0.0	A	0	0	0	0.0	A	7.1	PASS
COCONINO CO	1	0	0	0.3	B	0	0	0	0.0	A	6.5	PASS
GILA CO	4	0	0	1.3	C	0	0	0	0.0	A	9	PASS
LA PAZ CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MARICOPA CO	24	0	0	8.0	F	7	1	0	2.8	D	12.5	PASS
NAVAJO CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PIMA CO	1	0	0	0.3	B	0	0	0	0.0	A	6	PASS
PINAL CO	7	0	0	2.3	D	0	0	0	0.0	A	7.3	PASS
SANTA CRUZ CO	DNC	DNC	DNC	DNC	DNC	4	1	0	1.8	C	13.4	PASS
YAVAPAI CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
YUMA CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Navajo County's grade dropped from an A to a B.
- Yavapai County no longer has sufficient data to receive a grade.
- Yuma County's grade improved from a B to an A.

PM
- Pinal County's grade improved from a B to an A.
- Santa Cruz County's grade dropped from a B to a C.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

ARKANSAS

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
ARKANSAS CO	19,884	4,818	3,154	447	1,153	681	326	5,739	1,313
ASHLEY CO	22,843	5,684	3,266	527	1,308	763	351	6,271	1,436
CRITTENDEN CO	52,083	15,725	5,185	1,459	2,746	1,547	640	11,899	2,738
FAULKNER CO	100,685	24,164	9,732	2,242	5,670	3,098	1,187	22,769	5,231
GARLAND CO	95,164	20,081	19,722	1,864	5,716	3,444	1,775	30,490	6,925
JACKSON CO	17,426	3,860	2,574	358	1,027	594	270	4,852	1,110
MISSISSIPPI CO	47,517	13,793	5,897	1,280	2,561	1,475	656	11,870	2,722
MONTGOMERY CO	9,272	1,955	1,809	181	560	337	171	2,946	671
NEWTON CO	8,411	1,779	1,417	165	510	304	147	2,581	591
PHILLIPS CO	23,331	7,359	3,323	683	1,218	717	340	6,011	1,374
POLK CO	20,363	4,911	3,673	456	1,176	701	348	6,051	1,378
POPE CO	57,671	13,665	7,741	1,268	3,306	1,882	824	14,993	3,430
PULASKI CO	367,319	94,363	43,639	8,757	20,744	11,872	5,142	93,955	21,595
SEBASTIAN CO	120,322	31,507	15,300	2,924	6,735	3,869	1,709	30,998	7,109
UNION CO	44,170	10,724	6,946	995	2,551	1,500	712	12,580	2,876
WASHINGTON CO	186,521	48,171	17,558	4,470	10,273	5,626	2,165	41,440	9,525
WHITE CO	72,560	16,892	10,100	1,568	4,177	2,382	1,052	19,085	4,362
TOTALS	**1,265,542**	**319,451**	**161,036**	**29,645**	**71,432**	**40,790**	**17,813**	**324,532**	**74,385**

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
ARKANSAS CO	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	12.3	PASS
ASHLEY CO	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	13	PASS
CRITTENDEN CO	11	1	0	4.2	F	6	0	0	2.0	C	*	INC
FAULKNER CO	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	12.6	PASS
GARLAND CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	12.3	PASS
JACKSON CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
MISSISSIPPI CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
MONTGOMERY CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
NEWTON CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PHILLIPS CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	11.7	PASS
POLK CO	0	0	0	0.0	A	0	0	0	0.0	A	11.7	PASS
POPE CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	12.7	PASS
PULASKI CO	10	0	0	3.3	F	18	0	0	6.0	F	14	PASS
SEBASTIAN CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	*	INC
UNION CO	DNC	DNC	DNC	DNC	DNC	4	0	0	1.3	C	12.7	PASS
WASHINGTON CO	*	*	*	*	*	*	*	*	*	*	*	INC
WHITE CO	DNC	DNC	DNC	DNC	DNC	4	0	0	1.3	C	12.6	PASS

Ozone
- Newton County's grade improved from a C to an A.
- Polk County now has sufficient data to receive a grade.
- Pulaski County's grade dropped from a C to an F.
- Washington County now has ozone monitors, but not enough data to grade.

PM
- Crittenden County's grade improved from a D to a C.
- Phillips County's grade improved from a C to a B.
- Mississippi County no longer has sufficient data to receive a grade.
- Jackson County now has PM monitors, but not enough data to grade.
- Craighead County, Jefferson County, Marion County and Miller County no longer have PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

CALIFORNIA

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
ALAMEDA CO	1,457,426	354,996	154,857	32,944	84,103	46,678	19,149	357,283	82,216
AMADOR CO	38,941	6,569	7,036	610	2,507	1,444	691	12,177	2,778
BUTTE CO	215,881	46,257	32,177	4,293	12,832	7,261	3,245	58,624	13,379
CALAVERAS CO	47,722	8,793	8,182	816	3,063	1,765	846	14,898	3,408
COLUSA CO	21,272	6,097	2,459	566	1,142	637	269	4,963	1,136
CONTRA COSTA CO	1,024,319	255,392	118,122	23,700	59,407	33,277	14,216	261,124	60,060
EL DORADO CO	178,066	39,130	20,011	3,631	10,832	6,057	2,566	47,285	10,903
FRESNO CO	891,756	269,100	85,720	24,972	46,386	25,537	10,107	191,302	43,908
GLENN CO	28,061	7,834	3,415	727	1,534	860	371	6,789	1,554
HUMBOLDT CO	128,330	26,672	16,194	2,475	7,771	4,351	1,857	34,129	7,833
IMPERIAL CO	160,301	47,295	16,478	4,389	8,365	4,614	1,844	34,768	7,963
INYO CO	17,980	3,869	3,039	359	1,115	644	312	5,479	1,253
KERN CO	780,117	231,876	68,328	21,518	40,509	22,115	8,401	161,673	37,147
KINGS CO	146,153	40,276	10,847	3,738	7,621	4,083	1,406	28,207	6,483
LAKE CO	65,933	14,464	10,504	1,342	4,007	2,298	1,081	19,164	4,381
LOS ANGELES CO	9,948,081	2,680,206	1,013,531	248,723	546,345	301,816	121,319	2,282,052	524,249
MADERA CO	146,345	40,510	14,954	3,759	7,865	4,334	1,724	32,562	7,467
MARIN CO	248,742	49,251	36,968	4,570	15,930	9,120	4,255	75,640	17,386

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALAMEDA CO	6	0	0	2.0	C	6	0	0	2.0	C	9.7	PASS
AMADOR CO	10	0	0	3.3	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BUTTE CO	11	0	0	3.7	F	13	2	0	5.3	F	13.5	PASS
CALAVERAS CO	25	1	0	8.8	F	0	0	0	0.0	A	7.7	PASS
COLUSA CO	0	0	0	0.0	A	3	0	0	1.0	C	7.4	PASS
CONTRA COSTA CO	4	0	0	1.3	C	21	1	0	7.5	F	9.7	PASS
EL DORADO CO	65	2	0	22.7	F	*	*	*	*	*	*	INC
FRESNO CO	96	4	0	34.0	F	99	15	0	40.5	F	17.2	FAIL
GLENN CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HUMBOLDT CO	*	*	*	*	*	0	0	0	0.0	A	*	INC
IMPERIAL CO	25	0	0	8.3	F	7	3	0	3.8	F	12.5	PASS
INYO CO	6	0	0	2.0	C	0	1	1	1.2	C	5.3	PASS
KERN CO	191	38	1	83.3	F	95	17	0	40.2	F	18.9	FAIL
KINGS CO	18	0	0	6.0	F	27	4	0	11.0	F	17.2	FAIL
LAKE CO	0	0	0	0.0	A	0	0	0	0.0	A	4.8	PASS
LOS ANGELES CO	141	26	7	64.7	F	94	8	0	35.3	F	17.9	FAIL
MADERA CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MARIN CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
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AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
MARIPOSA CO	18,401	3,324	3,208	308	1,173	675	322	5,682	1,298
MENDOCINO CO	88,109	20,128	12,447	1,868	5,324	3,031	1,384	24,802	5,690
MERCED CO	245,658	77,953	22,559	7,234	12,393	6,797	2,643	50,379	11,557
MONO CO	12,754	2,648	1,335	246	776	430	175	3,274	755
MONTEREY CO	410,206	114,711	40,852	10,645	22,100	12,184	4,853	91,624	21,039
NAPA CO	133,522	30,301	18,977	2,812	7,953	4,510	2,031	36,576	8,374
NEVADA CO	98,764	18,649	16,844	1,731	6,355	3,670	1,771	31,111	7,123
ORANGE CO	3,002,048	790,483	323,452	73,357	167,648	93,117	38,360	714,617	164,166
PLACER CO	326,242	71,679	46,616	6,652	19,423	10,983	4,892	88,478	20,233
PLUMAS CO	21,263	3,906	3,933	362	1,384	805	400	6,957	1,591
RIVERSIDE CO	2,026,803	558,015	227,387	51,784	108,629	60,147	24,481	458,324	104,810
SACRAMENTO CO	1,374,724	362,210	151,043	33,613	76,326	42,383	17,447	325,142	74,607
SAN BENITO CO	55,842	16,714	4,699	1,551	2,965	1,628	634	12,074	2,785
SAN BERNARDINO CO	1,999,332	594,264	162,012	55,148	104,080	56,618	21,114	409,388	94,247
SAN DIEGO CO	2,941,454	745,182	327,369	69,153	164,778	91,371	37,390	698,437	160,168
SAN FRANCISCO CO	744,041	110,485	110,338	10,253	47,769	26,822	11,607	212,216	48,517
SAN JOAQUIN CO	673,170	194,067	65,317	18,009	35,789	19,707	7,804	147,680	33,915

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
MARIPOSA CO	18	2	0	7.0	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MENDOCINO CO	0	0	0	0.0	A	0	0	0	0.0	A	6.7	PASS
MERCED CO	24	1	0	8.5	F	24	0	0	8.0	F	14.7	PASS
MONO CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
MONTEREY CO	0	0	0	0.0	A	0	0	0	0.0	A	6.9	PASS
NAPA CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
NEVADA CO	56	4	0	20.7	F	0	0	0	0.0	A	6.7	PASS
ORANGE CO	18	2	0	7.0	F	45	0	0	15.0	F	15.2	FAIL
PLACER CO	65	7	0	25.2	F	4	0	0	1.3	C	10.2	PASS
PLUMAS CO	0	0	0	0.0	A	5	0	0	1.7	C	11.1	PASS
RIVERSIDE CO	159	45	2	76.8	F	125	10	0	46.7	F	20.6	FAIL
SACRAMENTO CO	54	7	0	21.5	F	51	7	0	20.5	F	12	PASS
SAN BENITO CO	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SAN BERNARDINO CO	167	52	13	90.3	F	39	5	0	15.5	F	19.4	FAIL
SAN DIEGO CO	27	0	0	9.0	F	22	1	0	7.8	F	13.3	PASS
SAN FRANCISCO CO	0	0	0	0.0	A	13	0	0	4.3	F	9.7	PASS
SAN JOAQUIN CO	11	0	0	3.7	F	15	0	0	5.0	F	12.9	PASS

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
SAN LUIS OBISPO CO	257,005	49,613	37,014	4,604	15,833	8,936	3,949	71,633	16,393
SAN MATEO CO	705,499	163,742	91,765	15,195	42,045	23,740	10,492	190,279	43,688
SANTA BARBARA CO	400,335	97,613	51,534	9,058	22,817	12,788	5,490	100,679	23,029
SANTA CLARA CO	1,731,281	431,737	181,904	40,065	98,498	54,554	22,180	415,324	95,503
SANTA CRUZ CO	249,705	55,995	25,802	5,196	14,939	8,290	3,395	63,386	14,622
SHASTA CO	179,951	40,445	26,883	3,753	10,767	6,131	2,808	50,272	11,498
SISKIYOU CO	45,091	9,085	8,226	843	2,852	1,658	822	14,305	3,267
SOLANO CO	411,680	108,126	43,256	10,034	23,156	12,863	5,298	98,702	22,705
SONOMA CO	466,891	106,856	59,337	9,916	28,002	15,789	6,936	126,063	28,971
STANISLAUS CO	512,138	147,599	51,201	13,697	27,284	15,060	6,033	113,645	26,088
SUTTER CO	91,410	24,151	11,001	2,241	5,063	2,828	1,197	22,067	5,052
TEHAMA CO	61,686	14,834	9,200	1,377	3,577	2,035	929	16,646	3,800
TULARE CO	419,909	134,299	38,836	12,463	21,210	11,657	4,577	86,913	19,945
TUOLUMNE CO	56,855	10,033	10,575	931	3,650	2,113	1,030	18,034	4,113
VENTURA CO	799,720	212,956	86,816	19,762	44,895	25,020	10,456	193,699	44,537
YOLO CO	188,085	44,006	18,085	4,084	10,575	5,764	2,173	41,954	9,629
TOTALS	**36,295,000**	**9,494,396**	**3,912,645**	**881,080**	**2,021,365**	**1,120,995**	**458,734**	**8,568,481**	**1,967,221**

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
SAN LUIS OBISPO CO	8	0	0	2.7	D	0	0	0	0.0	A	8	PASS
SAN MATEO CO	0	0	0	0.0	A	1	1	0	0.8	B	9.2	PASS
SANTA BARBARA CO	2	0	0	0.7	B	0	0	0	0.0	A	10.6	PASS
SANTA CLARA CO	8	1	0	3.2	D	39	0	0	13.0	F	11.4	PASS
SANTA CRUZ CO	0	0	0	0.0	A	0	0	0	0.0	A	*	INC
SHASTA CO	6	0	0	2.0	C	0	0	0	0.0	A	7.7	PASS
SISKIYOU CO	0	0	0	0.0	A	*	*	*	*	*	*	INC
SOLANO CO	4	0	0	1.3	C	9	0	0	3.0	D	10.2	PASS
SONOMA CO	0	0	0	0.0	A	1	0	0	0.3	B	8.3	PASS
STANISLAUS CO	23	0	0	7.7	F	25	2	0	9.3	F	14.1	PASS
SUTTER CO	8	0	0	2.7	D	7	0	0	2.3	D	10.3	PASS
TEHAMA CO	14	0	0	4.7	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TULARE CO	193	7	0	67.8	F	29	2	0	10.7	F	18.2	FAIL
TUOLUMNE CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
VENTURA CO	45	0	0	15.0	F	5	0	0	1.7	C	11.4	PASS
YOLO CO	6	0	0	2.0	C	5	0	0	1.7	C	9.4	PASS

Ozone
- Amador County and Tehama County each dropped their grade from a D to an F.
- Contra Costa, Solano County and Yolo County each dropped their grade from a B to a C.
- Madera County's grade improved from an F to a B.
- San Joaquin County's grade dropped from a C to an F.
- San Luis Obispo County's grade dropped from a B to a D.
- Santa Barbara County and Tuolumne County improved their grades from a D to a B.
- Shasta County's grade improved from an F to a C.
- Humboldt County now has ozone monitors, but not enough data to grade.

PM
- Colusa County, Inyo County, Placer County and Yolo County dropped their grades from a B to a C.
- Humboldt County's grade improved from a B to an A.
- Imperial County's grade dropped from a D to an F.
- Mono County no longer has sufficient data to receive a grade.
- Plumas County's grade improved from a D to a C.
- Sutter County's grade dropped from a C to a D.
- Ventura County's grade improved from a D to a C.
- Contra Costa County now has sufficient data to grade their annual levels.
- Modoc County no longer has PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

COLORADO

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
ADAMS CO	414,338	117,689	32,342	10,922	23,541	11,934	4,389	85,595	19,730
ARAPAHOE CO	537,197	136,826	52,650	12,697	31,360	17,027	6,912	129,492	29,864
ARCHULETA CO	12,386	2,557	1,715	237	762	438	198	3,555	817
BOULDER CO	282,304	61,248	23,975	5,684	17,406	9,177	3,493	67,148	15,526
DELTA CO	30,401	6,552	5,896	608	1,839	1,092	552	9,540	2,171
DENVER CO	566,974	138,741	61,003	12,875	33,783	17,738	7,148	134,329	30,832
DOUGLAS CO	263,621	73,874	13,170	6,856	15,059	7,583	2,554	51,700	12,021
EL PASO CO	576,884	150,019	53,001	13,922	33,621	17,746	6,956	132,146	30,457
ELBERT CO	23,181	5,565	1,725	516	1,371	764	300	5,689	1,323
GUNNISON CO	14,331	2,525	1,057	234	940	466	161	3,228	746
JEFFERSON CO	526,994	123,016	58,665	11,416	31,378	17,769	7,601	139,524	32,190
LA PLATA CO	47,936	9,362	4,977	869	3,023	1,636	659	12,388	2,858
LARIMER CO	276,253	60,375	28,906	5,603	16,992	9,010	3,605	67,936	15,632
MESA CO	134,189	30,268	20,427	2,809	8,105	4,537	2,079	37,211	8,499
MONTEZUMA CO	25,217	6,160	3,823	572	1,477	852	399	7,087	1,621
PUEBLO CO	152,912	36,987	22,622	3,432	9,049	5,042	2,300	41,232	9,416
ROUTT CO	21,580	4,223	1,328	392	1,364	724	261	5,130	1,195
SAN MIGUEL CO	7,143	1,210	297	112	469	240	79	1,614	378
WELD CO	236,857	63,051	18,800	5,851	13,810	6,955	2,538	49,661	11,443
TOTALS	**4,150,698**	**1,030,248**	**406,379**	**95,607**	**245,349**	**130,729**	**52,185**	**984,206**	**226,721**

American Lung Association of Colorado
5600 Greenwood Plaza Blvd., Suite 100
Greenwood Village, CO 80111-2316
(303) 388-4327
www.lungusa.org/colorado

HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS CO	0	0	0	0.0	A	2	0	0	0.7	B	9.9	PASS
ARAPAHOE CO	2	0	0	0.7	B	2	0	0	0.7	B	7.8	PASS
ARCHULETA CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	*	INC
BOULDER CO	3	0	0	1.0	C	0	0	0	0.0	A	8.2	PASS
DELTA CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	7.3	PASS
DENVER CO	1	0	0	0.3	B	11	0	0	3.7	F	9.1	PASS
DOUGLAS CO	6	0	0	2.0	C	*	*	*	*	*	*	INC
EL PASO CO	1	0	0	0.3	B	0	0	0	0.0	A	8.1	PASS
ELBERT CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	4.3	PASS
GUNNISON CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	*	INC
JEFFERSON CO	8	0	0	2.7	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LA PLATA CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LARIMER CO	6	0	0	2.0	C	0	0	0	0.0	A	7.3	PASS
MESA CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	9.5	PASS
MONTEZUMA CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PUEBLO CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	7.5	PASS
ROUTT CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
SAN MIGUEL CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	4.5	PASS
WELD CO	2	0	0	0.7	B	1	0	0	0.3	B	8.6	PASS

Ozone
- Arapahoe County and Denver County improved their grades from a C to a B.
- Boulder County's grade dropped from a B to a C.
- Douglas County's grade improved from an F to a C.
- Jefferson County's grade improved from an F to a D.
- Larimer County's grade improved from a D to a C.

PM
- Denver County's grade dropped from a D to an F.
- Gunnison County's grade improved from a B to an A.
- Routt County no longer has sufficient data to receive a grade.
- Weld County's grade dropped from an A to a B.
- La Plata County no longer has PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

CONNECTICUT

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
FAIRFIELD CO	900,440	226,859	116,628	21,053	62,135	29,651	13,225	239,020	54,866
HARTFORD CO	876,927	203,102	123,748	18,848	62,032	29,651	13,421	241,277	55,278
LITCHFIELD CO	190,119	41,590	27,051	3,860	13,691	6,662	3,053	54,627	12,542
MIDDLESEX CO	163,774	35,758	22,771	3,318	11,800	5,653	2,544	45,831	10,514
NEW HAVEN CO	845,244	195,321	115,929	18,126	59,858	28,275	12,590	227,710	52,161
NEW LONDON CO	263,293	60,266	34,755	5,593	18,721	8,803	3,868	70,305	16,120
TOLLAND CO	148,140	29,570	15,692	2,744	10,997	4,971	1,993	37,525	8,641
TOTALS	**3,387,937**	**792,466**	**456,574**	**73,541**	**239,235**	**113,667**	**50,694**	**916,294**	**210,123**

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

HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
FAIRFIELD CO	26	7	0	12.2	F	14	0	0	4.7	F	13.2	PASS
HARTFORD CO	9	1	0	3.5	F	11	0	0	3.7	F	11.1	PASS
LITCHFIELD CO	14	0	0	4.7	F	*	*	*	*	*	*	INC
MIDDLESEX CO	10	3	0	4.8	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
NEW HAVEN CO	15	3	0	6.5	F	32	0	0	10.7	F	13.1	PASS
NEW LONDON CO	8	1	0	3.2	D	3	0	0	1.0	C	10.9	PASS
TOLLAND CO	12	2	0	5.0	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Hartford County's grade dropped from a C to an F.
- New London County's grade improved from an F to a D.

PM
- No changes occurred in PM grades or monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

DELAWARE

AT-RISK GROUPS

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 CO	147,601	37,101	18,479	3,443	10,629	4,713	2,030	37,179	8,517
NEW CASTLE CO	525,587	128,083	60,843	11,886	38,081	17,023	7,200	132,760	30,508
SUSSEX CO	180,288	38,182	35,252	3,543	13,228	6,465	3,258	56,390	12,825
TOTALS	**853,476**	**203,366**	**114,574**	**18,872**	**61,937**	**28,200**	**12,488**	**226,329**	**51,850**

American Lung Association of Delaware
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Wilmington, DE 19806-3280
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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
KENT CO	6	0	0	2.0	C	6	0	0	2.0	C	12.6	PASS
NEW CASTLE CO	12	1	0	4.5	F	27	0	0	9.0	F	14.8	PASS
SUSSEX CO	12	1	0	4.5	F	6	0	0	2.0	C	13.5	PASS

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Kent County and Sussex County improved their grades from a D to a C.
- New Castle County's grade improved from failing to passing for their PM annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

DISTRICT OF COLUMBIA

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
DISTRICT OF COLUMBIA	581,530	114,881	71,331	10,661	46,097	19,319	7,919	147,833	33,859
TOTALS	**581,530**	**114,881**	**71,331**	**10,661**	**46,097**	**19,319**	**7,919**	**147,833**	**33,859**

American Lung Association of the District of Columbia
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Washington, DC 20003
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HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
DISTRICT OF COLUMBIA	18	0	0	6.0	F

PARTICLE POLLUTION DAYS 2004-2006

24-Hour					Annual	
Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
27	1	0	9.5	F	14.5	PASS

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

FLORIDA

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
ALACHUA CO	227,120	43,481	23,659	4,035	13,333	7,387	2,820	54,157	12,429
BAKER CO	25,203	6,374	2,528	592	1,370	788	316	5,953	1,370
BAY CO	163,505	37,685	22,816	3,497	9,120	5,550	2,508	45,117	10,343
BREVARD CO	534,359	107,965	106,110	10,019	30,621	19,546	9,904	171,096	38,937
BROWARD CO	1,787,636	427,484	250,657	39,671	98,469	59,586	26,903	484,100	110,850
CITRUS CO	138,143	22,157	41,522	2,056	8,198	5,607	3,284	54,131	12,199
COLLIER CO	314,649	64,321	76,268	5,969	17,805	11,628	6,332	106,811	24,141
COLUMBIA CO	67,007	15,342	9,537	1,424	3,737	2,241	1,004	18,124	4,146
DUVAL CO	837,964	218,224	87,440	20,251	45,113	26,341	10,855	202,179	46,536
ESCAMBIA CO	295,426	68,019	43,682	6,312	16,442	9,986	4,567	81,803	18,710
HIGHLANDS CO	97,987	18,150	30,511	1,684	5,612	3,834	2,295	37,579	8,437
HILLSBOROUGH CO	1,157,738	286,848	133,551	26,619	63,257	37,083	15,611	288,389	66,231
HOLMES CO	19,285	4,093	3,072	380	1,096	663	306	5,460	1,246
LAKE CO	290,435	55,801	78,549	5,178	16,600	10,964	6,187	103,186	23,241
LEE CO	571,344	114,568	127,048	10,632	32,621	20,974	11,017	188,045	42,613

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALACHUA CO	0	0	0	0.0	A	2	0	0	0.7	B	9.5	PASS
BAKER CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BAY CO	2	0	0	0.7	B	2	0	0	0.7	B	11.7	PASS
BREVARD CO	1	0	0	0.3	B	2	0	0	0.7	B	8.6	PASS
BROWARD CO	2	0	0	0.7	B	0	0	0	0.0	A	8.3	PASS
CITRUS CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	9.1	PASS
COLLIER CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
COLUMBIA CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DUVAL CO	5	0	0	1.7	C	7	0	0	2.3	D	10.5	PASS
ESCAMBIA CO	7	0	0	2.3	D	11	0	0	3.7	F	11.9	PASS
HIGHLANDS CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HILLSBOROUGH CO	7	0	0	2.3	D	5	0	0	1.7	C	10.8	PASS
HOLMES CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LAKE CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LEE CO	0	0	0	0.0	A	1	0	0	0.3	B	8.4	PASS

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
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FLORIDA

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
LEON CO	245,625	51,480	22,080	4,777	14,148	7,876	2,951	57,108	13,161
MANATEE CO	313,298	65,485	69,345	6,077	17,700	11,433	6,032	102,807	23,303
MARION CO	316,183	62,951	74,802	5,842	18,032	11,683	6,275	106,326	24,046
MIAMI-DADE CO	2,402,208	574,429	341,849	53,307	132,107	79,152	35,562	641,122	146,564
ORANGE CO	1,043,500	263,683	99,802	24,470	56,769	32,256	12,662	240,418	55,340
OSCEOLA CO	244,045	61,809	27,463	5,736	13,219	7,607	3,132	58,361	13,384
PALM BEACH CO	1,274,013	270,749	271,970	25,126	71,738	46,010	23,951	410,041	93,005
PASCO CO	450,171	91,548	94,928	8,496	25,649	16,278	8,362	143,804	32,614
PINELLAS CO	924,413	178,414	191,863	16,557	53,569	34,729	17,928	307,752	70,055
POLK CO	561,606	134,201	96,609	12,454	30,724	18,924	9,119	160,309	36,486
SANTA ROSA CO	144,561	33,562	17,009	3,115	8,078	4,823	2,066	37,911	8,724
SARASOTA CO	369,535	59,655	108,733	5,536	21,940	15,022	8,744	144,409	32,582
SEMINOLE CO	406,875	95,226	44,579	8,837	22,716	13,490	5,671	104,800	24,154
ST. LUCIE CO	252,724	54,778	50,250	5,083	14,171	8,885	4,475	77,481	17,581
VOLUSIA CO	496,575	97,065	101,325	9,008	28,646	18,204	9,246	159,608	36,274
WAKULLA CO	29,542	6,269	3,611	582	1,691	998	424	7,802	1,792
TOTALS	**16,002,675**	**3,591,816**	**2,653,168**	**333,321**	**894,291**	**549,546**	**260,510**	**4,606,188**	**1,050,492**

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
LEON CO	1	0	0	0.3	B	2	0	0	0.7	B	12.8	PASS
MANATEE CO	4	0	0	1.3	C	1	0	0	0.3	B	8.9	PASS
MARION CO	0	0	0	0.0	A	2	0	0	0.7	B	10.2	PASS
MIAMI-DADE CO	2	0	0	0.7	B	2	0	0	0.7	B	9.5	PASS
ORANGE CO	5	0	0	1.7	C	4	0	0	1.3	C	9.7	PASS
OSCEOLA CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PALM BEACH CO	0	0	0	0.0	A	0	0	0	0.0	A	7.8	PASS
PASCO CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PINELLAS CO	2	0	0	0.7	B	4	0	0	1.3	C	9.9	PASS
POLK CO	2	0	0	0.7	B	1	0	0	0.3	B	9.7	PASS
SANTA ROSA CO	2	0	0	0.7	B	*	*	*	*	*	*	INC
SARASOTA CO	6	0	0	2.0	C	1	0	0	0.3	B	8.9	PASS
SEMINOLE CO	1	0	0	0.3	B	1	0	0	0.3	B	9.6	PASS
ST. LUCIE CO	0	0	0	0.0	A	1	0	0	0.3	B	8.9	PASS
VOLUSIA CO	0	0	0	0.0	A	1	0	0	0.3	B	9.3	PASS
WAKULLA CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Sarasota county's grade improved from a D to a C.
- Bay County, Lake County and Santa Rosa County improved their grades from a C to a B.
- Brevard County, Broward County, Pinellas County and Seminole County dropped their grades from an A to a B.
- Lee County, Marion County and Wakulla County improved their grades from a B to an A.

PM
- No changes occurred in PM grades or monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

GEORGIA

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
BIBB CO	154,903	42,130	19,712	3,910	8,948	4,905	2,172	39,372	9,024
CHATHAM CO	241,411	61,662	30,432	5,722	14,267	7,704	3,343	61,051	13,987
CHATTOOGA CO	26,442	5,961	3,780	553	1,624	883	394	7,117	1,627
CLARKE CO	112,787	19,965	9,173	1,853	7,406	3,429	1,104	22,815	5,223
CLAYTON CO	271,240	81,630	18,080	7,575	15,129	7,606	2,714	53,602	12,391
COBB CO	679,325	179,373	54,874	16,646	39,849	20,858	8,002	153,327	35,459
COLUMBIA CO	106,887	28,052	9,539	2,603	6,278	3,354	1,339	25,247	5,835
COWETA CO	115,291	31,006	10,144	2,877	6,713	3,467	1,335	25,541	5,885
DAWSON CO	20,643	4,944	2,257	459	1,248	661	271	5,061	1,163
DEKALB CO	723,602	182,796	60,433	16,963	43,100	22,303	8,480	163,087	37,659
DOUGHERTY CO	94,773	26,333	11,877	2,444	5,431	2,950	1,295	23,544	5,393
DOUGLAS CO	119,557	32,703	8,469	3,035	6,929	3,526	1,282	25,115	5,809
FAYETTE CO	106,671	25,315	11,207	2,349	6,471	3,608	1,537	28,254	6,532
FLOYD CO	95,322	23,599	13,394	2,190	5,686	3,102	1,392	25,105	5,739
FULTON CO	960,009	242,854	77,072	22,537	57,171	29,712	11,266	216,904	50,154
GLYNN CO	73,630	18,147	10,515	1,684	4,397	2,451	1,122	20,091	4,600

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
BIBB CO	10	0	0	3.3	F	8	0	0	2.7	D	16.8	FAIL
CHATHAM CO	0	0	0	0.0	A	4	0	0	1.3	C	14.1	PASS
CHATTOOGA CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CLARKE CO	9	0	0	3.0	D	2	0	0	0.7	B	*	INC
CLAYTON CO	DNC	DNC	DNC	DNC	DNC	9	0	0	3.0	D	16.7	FAIL
COBB CO	12	1	0	4.5	F	8	0	0	2.7	D	16.1	FAIL
COLUMBIA CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
COWETA CO	6	0	0	2.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DAWSON CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DEKALB CO	20	3	0	8.2	F	19	0	0	6.3	F	15.7	FAIL
DOUGHERTY CO	DNC	DNC	DNC	DNC	DNC	7	0	0	2.3	D	14.5	PASS
DOUGLAS CO	15	2	0	6.0	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FAYETTE CO	13	0	0	4.3	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FLOYD CO	DNC	DNC	DNC	DNC	DNC	7	0	0	2.3	D	16.1	FAIL
FULTON CO	21	4	0	9.0	F	21	0	0	7.0	F	17.6	FAIL
GLYNN CO	0	0	0	0.0	A	3	0	0	1.0	C	12.3	PASS

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
GWINNETT CO	757,104	215,360	44,825	19,985	43,263	21,850	7,657	152,370	35,344
HALL CO	173,256	48,649	16,648	4,515	9,916	5,110	2,008	38,115	8,756
HENRY CO	178,033	49,798	12,657	4,621	10,230	5,108	1,820	35,962	8,301
HOUSTON CO	127,530	34,002	13,071	3,155	7,439	3,942	1,609	30,078	6,919
LOWNDES CO	97,844	25,609	9,439	2,377	5,750	2,928	1,131	21,620	4,964
MURRAY CO	41,398	11,331	3,594	1,052	2,395	1,233	473	9,062	2,088
MUSCOGEE CO	188,660	51,809	22,031	4,808	10,869	5,837	2,490	45,769	10,498
PAULDING CO	121,530	35,565	7,186	3,300	6,865	3,329	1,107	22,537	5,206
RICHMOND CO	194,398	53,225	22,690	4,939	11,212	6,043	2,585	47,469	10,892
ROCKDALE CO	80,332	21,390	7,451	1,985	4,692	2,506	1,008	18,954	4,376
SUMTER CO	32,490	9,015	4,062	837	1,863	1,006	439	8,001	1,832
WALKER CO	64,606	15,071	8,993	1,399	3,928	2,156	965	17,416	3,987
WASHINGTON CO	20,723	5,108	2,722	474	1,239	675	297	5,400	1,237
WILKINSON CO	9,995	2,526	1,406	234	592	328	149	2,677	613
TOTALS	**5,990,392**	**1,584,928**	**527,733**	**147,081**	**350,902**	**182,571**	**70,785**	**1,350,665**	**311,495**

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
GWINNETT CO	10	3	0	4.8	F	3	0	0	1.0	C	16.4	FAIL
HALL CO	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	14.1	PASS
HENRY CO	19	1	0	6.8	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HOUSTON CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	14.3	PASS
LOWNDES CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	12.8	PASS
MURRAY CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MUSCOGEE CO	4	0	0	1.3	C	6	1	0	2.5	D	15	PASS
PAULDING CO	5	0	0	1.7	C	4	0	0	1.3	C	14	PASS
RICHMOND CO	6	0	0	2.0	C	7	0	0	2.3	D	16	FAIL
ROCKDALE CO	19	1	0	6.8	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SUMTER CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WALKER CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	15.2	FAIL
WASHINGTON CO	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	15.5	FAIL
WILKINSON CO	DNC	DNC	DNC	DNC	DNC	7	0	0	2.3	D	15.5	FAIL

Ozone
- Bibb County's and Fayette County's grades dropped from a D to an F.
- Chattooga County now has sufficient data to receive a grade.
- Clarke County's grade dropped from a C to a D.
- Cobb County's grade dropped from a C to an F.
- Coweta County's and Muscogee County's grades dropped from a B to a C.
- Murray County's grade improved from a C to a B.

PM
- Clarke County's and Walker County's grades improved from a C to a B.
- Clayton County's and Cobb County's grades improved from an F to a D
- Dougherty County's grade dropped from a C to a D.
- Washington County's grade dropped from a B to a C.
- Washington County's and Wilkinson County's grades dropped from passing to failing in their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
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HAWAII

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
HAWAII CO	171,191	39,988	22,812	3,711	10,486	5,772	2,576	46,542	10,681
HONOLULU CO	909,863	209,901	131,123	19,479	55,875	30,244	13,570	244,772	55,941
MAUI CO	141,320	33,281	16,445	3,088	8,707	4,685	2,001	36,756	8,458
TOTALS	**1,222,374**	**283,170**	**170,380**	**26,278**	**75,069**	**40,701**	**18,147**	**328,070**	**75,080**

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HIGH OZONE DAYS 2004-2006

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

PARTICLE POLLUTION DAYS 2004-2006

24-Hour					Annual	
Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
DNC	DNC	DNC	DNC	DNC	DNC	DNC
2	3	0	2.2	D	4.9	PASS
0	0	0	0.0	A	4.6	PASS

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

IDAHO

AT-RISK GROUPS

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 CO	359,035	93,089	34,549	8,639	24,206	11,106	4,417	83,426	19,213
BANNOCK CO	78,443	22,402	8,162	2,079	5,099	2,362	973	18,123	4,164
BENEWAH CO	9,347	2,273	1,487	211	641	325	157	2,761	632
BOISE CO	7,641	1,692	864	157	539	268	117	2,132	493
BONNER CO	41,275	8,974	5,607	833	2,926	1,469	672	12,030	2,769
BONNEVILLE CO	94,630	28,219	9,767	2,619	6,040	2,823	1,175	21,798	5,011
BOUNDARY CO	10,831	2,725	1,486	253	735	367	170	3,025	695
BUTTE CO	2,781	767	453	71	182	93	46	806	184
CANYON CO	173,302	52,227	17,491	4,847	11,037	4,960	1,984	37,394	8,570
CARIBOU CO	6,996	1,909	1,009	177	461	230	108	1,922	440
ELMORE CO	28,114	8,190	2,323	760	1,818	795	294	5,724	1,316
FRANKLIN CO	12,494	4,235	1,419	393	751	352	152	2,782	637
GEM CO	16,558	4,058	2,725	377	1,135	558	267	4,707	1,073
IDAHO CO	15,762	3,326	2,879	309	1,125	582	292	5,061	1,157
KOOTENAI CO	131,507	32,430	17,599	3,010	8,999	4,329	1,932	34,908	8,001
LEMHI CO	7,930	1,706	1,409	158	563	293	147	2,546	583
NEZ PERCE CO	38,324	8,574	6,735	796	2,699	1,342	655	11,463	2,614
POWER CO	7,914	2,414	886	224	500	239	103	1,888	434
SHOSHONE CO	13,180	2,776	2,419	258	942	486	244	4,232	967
TOTALS	**1,056,064**	**281,986**	**119,269**	**26,168**	**70,397**	**32,978**	**13,906**	**256,728**	**58,955**

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	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADA CO	2	0	0	0.7	B	2	0	0	0.7	B	8.5	PASS
BANNOCK CO	DNC	DNC	DNC	DNC	DNC	1	1	0	0.8	B	7.7	PASS
BENEWAH CO	DNC	DNC	DNC	DNC	DNC	5	0	0	1.7	C	9.5	PASS
BOISE CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
BONNER CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
BONNEVILLE CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
BOUNDARY CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
BUTTE CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CANYON CO	0	0	0	0.0	A	9	0	0	3.0	D	8.6	PASS
CARIBOU CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
ELMORE CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FRANKLIN CO	DNC	DNC	DNC	DNC	DNC	21	4	0	9.0	F	*	INC
GEM CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	*	INC
IDAHO CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	*	INC
KOOTENAI CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LEMHI CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
NEZ PERCE CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
POWER CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
SHOSHONE CO	DNC	DNC	DNC	DNC	DNC	9	0	0	3.0	D	12.1	PASS

Ozone
- Ada County's grade dropped from an A to a B.
- Elmore County no longer has sufficient data to receive a grade.

PM
- Benewah County's grade improved from a D to a C.
- Bonneville County, Boundary County, Lemhi County and Power County no longer have sufficient data to receive a grade.
- Franklin County and Gem County now have sufficient data to receive a grade.
- Idaho County's grade dropped from an A to a B.
- Shoshone County's grade improved from an F to a D.
- Benewah County now has sufficient data to grade their annual levels.
- Kootenai County, Latah County, Twin Falls County and Valley County no longer have PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

ILLINOIS

AT-RISK GROUPS

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 CO	67,221	15,308	11,649	1,421	4,284	2,312	1,116	19,608	4,467
CHAMPAIGN CO	185,682	37,220	18,525	3,454	12,180	5,837	2,155	41,969	9,617
CLARK CO	16,987	3,826	2,911	355	1,087	587	282	4,967	1,132
COOK CO	5,288,655	1,357,756	617,749	126,000	325,805	167,028	70,605	1,302,314	298,808
DU PAGE CO	932,670	237,491	96,569	22,039	58,043	29,928	12,438	230,877	53,228
EFFINGHAM CO	34,429	8,830	5,008	819	2,119	1,123	516	9,227	2,109
HAMILTON CO	8,335	1,762	1,636	164	543	300	152	2,620	596
JERSEY CO	22,628	4,898	3,325	455	1,467	771	348	6,259	1,431
KANE CO	493,735	143,420	40,205	13,309	29,071	14,343	5,439	104,730	24,151
LA SALLE CO	113,065	26,286	17,791	2,439	7,178	3,829	1,789	31,797	7,260
LAKE CO	713,076	198,058	64,539	18,380	42,896	21,654	8,603	162,546	37,495
MACON CO	109,309	25,420	17,210	2,359	6,965	3,760	1,776	31,441	7,190
MACOUPIN CO	48,841	10,828	8,104	1,005	3,145	1,691	804	14,200	3,240

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HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
ADAMS CO	0	0	0	0.0	A
CHAMPAIGN CO	0	0	0	0.0	A
CLARK CO	0	0	0	0.0	A
COOK CO	12	2	0	5.0	F
DU PAGE CO	1	0	0	0.3	B
EFFINGHAM CO	0	0	0	0.0	A
HAMILTON CO	0	0	0	0.0	A
JERSEY CO	4	0	0	1.3	C
KANE CO	5	0	0	1.7	C
LA SALLE CO	DNC	DNC	DNC	DNC	DNC
LAKE CO	7	0	0	2.3	D
MACON CO	0	0	0	0.0	A
MACOUPIN CO	1	0	0	0.3	B

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS CO	3	0	0	1.0	C	12.1	PASS
CHAMPAIGN CO	4	0	0	1.3	C	12.1	PASS
CLARK CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
COOK CO	41	0	0	13.7	F	15.6	FAIL
DU PAGE CO	4	0	0	1.3	C	13.7	PASS
EFFINGHAM CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HAMILTON CO	*	*	*	*	*	*	INC
JERSEY CO	3	0	0	1.0	C	12.6	PASS
KANE CO	4	0	0	1.3	C	13	PASS
LA SALLE CO	3	0	0	1.0	C	*	INC
LAKE CO	3	0	0	1.0	C	11.6	PASS
MACON CO	2	0	0	0.7	B	12.8	PASS
MACOUPIN CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
MADISON CO	265,303	61,579	36,877	5,715	16,877	8,840	3,944	71,281	16,316
MCHENRY CO	312,373	84,109	28,608	7,805	18,980	9,527	3,757	71,204	16,413
MCLEAN CO	161,202	36,331	15,663	3,372	10,297	5,026	1,908	36,724	8,435
PEORIA CO	182,495	45,065	25,255	4,182	11,389	5,989	2,691	48,509	11,103
RANDOLPH CO	33,028	6,862	4,925	637	2,161	1,130	507	9,148	2,090
ROCK ISLAND CO	147,545	33,547	22,730	3,113	9,442	5,030	2,332	41,567	9,500
SANGAMON CO	193,524	45,524	26,320	4,225	12,304	6,497	2,911	52,526	12,044
ST CLAIR CO	260,919	66,855	32,724	6,204	16,077	8,321	3,609	65,923	15,106
WILL CO	668,217	183,202	53,194	17,001	40,197	19,641	7,288	141,595	32,654
WINNEBAGO CO	295,635	73,862	37,744	6,854	18,386	9,554	4,169	75,980	17,414
TOTALS	**10,554,874**	**2,708,039**	**1,189,261**	**251,306**	**650,892**	**332,718**	**139,140**	**2,577,012**	**591,798**

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
MADISON CO	14	0	0	4.7	F	22	0	0	7.3	F	16.6	FAIL
MCHENRY CO	4	0	0	1.3	C	5	0	0	1.7	C	12.3	PASS
MCLEAN CO	0	0	0	0.0	A	2	0	0	0.7	B	*	INC
PEORIA CO	0	0	0	0.0	A	6	0	0	2.0	C	13.1	PASS
RANDOLPH CO	0	0	0	0.0	A	0	0	0	0.0	A	12.5	PASS
ROCK ISLAND CO	0	0	0	0.0	A	3	0	0	1.0	C	11.5	PASS
SANGAMON CO	0	0	0	0.0	A	5	0	0	1.7	C	12.9	PASS
ST CLAIR CO	7	1	0	2.8	D	8	0	0	2.7	D	15.5	FAIL
WILL CO	0	0	0	0.0	A	4	0	0	1.3	C	13.2	PASS
WINNEBAGO CO	0	0	0	0.0	A	5	0	0	1.7	C	*	INC

Ozone
- Lake County's grade dropped from a C to a D.
- St. Clair County's grade improved from an F to a D.
- Will County's grade improved from a B to an A.

PM
- Jersey County now has sufficient data to receive a grade.
- Macon County and McLean County improved their grades from a C to a B.
- Peoria County's grade improved from a D to a C.
- Randolph County's grade improved from a B to an A.
- St. Clair County's grade improved from an F to a D.
- Jersey County now has sufficient data to receive a grade for their annual levels.
- La Salle County no longer has sufficient data to receive a grade for their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

INDIANA

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
ALLEN CO	347,316	94,314	39,335	8,752	21,270	10,866	4,625	85,071	19,546
BOONE CO	53,526	13,823	6,012	1,283	3,346	1,711	726	13,368	3,075
CARROLL CO	20,526	4,987	2,876	463	1,298	688	313	5,616	1,287
CLARK CO	103,569	24,373	12,865	2,262	6,644	3,413	1,473	26,951	6,186
DELAWARE CO	114,879	23,978	16,332	2,225	7,550	3,867	1,694	30,833	7,045
DUBOIS CO	41,212	10,403	5,645	965	2,570	1,348	607	10,938	2,505
ELKHART CO	198,105	55,806	21,574	5,179	11,942	6,012	2,506	46,479	10,670
FLOYD CO	72,570	17,406	9,139	1,615	4,640	2,424	1,068	19,393	4,457
GIBSON CO	33,396	7,804	4,899	724	2,132	1,130	519	9,277	2,123
GREENE CO	33,360	7,818	5,006	726	2,125	1,132	524	9,350	2,139
HAMILTON CO	250,979	71,229	19,056	6,610	15,283	7,373	2,757	53,391	12,338
HANCOCK CO	65,050	15,803	7,734	1,467	4,142	2,126	911	16,713	3,841
HENDRICKS CO	131,204	33,090	12,855	3,071	8,286	4,099	1,634	30,833	7,100
HENRY CO	46,947	10,784	7,635	1,001	3,001	1,631	780	13,746	3,142
HOWARD CO	84,500	20,962	12,046	1,945	5,306	2,828	1,302	23,257	5,329
HUNTINGTON CO	38,026	9,209	5,490	855	2,399	1,267	578	10,366	2,372

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALLEN CO	8	0	0	2.7	D	5	0	0	1.7	C	13.4	PASS
BOONE CO	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CARROLL CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CLARK CO	6	0	0	2.0	C	9	0	0	3.0	D	16.2	FAIL
DELAWARE CO	2	0	0	0.7	B	5	1	0	2.2	D	13.5	PASS
DUBOIS CO	DNC	DNC	DNC	DNC	DNC	10	0	0	3.3	F	15	PASS
ELKHART CO	5	0	0	1.7	C	5	0	0	1.7	C	*	INC
FLOYD CO	3	0	0	1.0	C	7	0	0	2.3	D	14.6	PASS
GIBSON CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GREENE CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HAMILTON CO	5	0	0	1.7	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HANCOCK CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HENDRICKS CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HENRY CO	DNC	DNC	DNC	DNC	DNC	5	0	0	1.7	C	*	INC
HOWARD CO	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	13.6	PASS
HUNTINGTON CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
JACKSON CO	42,404	10,531	5,808	977	2,657	1,387	621	11,206	2,565
JOHNSON CO	133,316	33,870	15,010	3,143	8,354	4,216	1,761	32,627	7,493
KNOX CO	38,241	8,224	6,099	763	2,485	1,317	612	10,895	2,487
LA PORTE CO	110,479	25,660	15,052	2,381	7,095	3,716	1,662	30,005	6,879
LAKE CO	494,202	128,921	63,201	11,964	30,615	16,009	7,114	128,758	29,544
MADISON CO	130,575	30,051	20,165	2,789	8,349	4,457	2,077	36,950	8,447
MARION CO	865,504	232,607	94,263	21,586	53,195	26,791	11,140	206,781	47,503
MORGAN CO	70,290	17,518	7,947	1,626	4,452	2,283	971	17,861	4,110
PERRY CO	18,843	3,907	2,785	363	1,244	653	295	5,306	1,214
PORTER CO	160,105	37,307	18,081	3,462	10,370	5,300	2,236	41,271	9,502
POSEY CO	26,765	6,358	3,380	590	1,722	910	406	7,331	1,687
SHELBY CO	44,114	10,997	5,535	1,021	2,779	1,443	633	11,507	2,642
SPENCER CO	20,596	4,875	2,861	452	1,316	698	317	5,692	1,306
ST JOSEPH CO	266,678	67,923	34,453	6,303	16,604	8,583	3,771	68,549	15,705
TIPPECANOE CO	156,169	32,919	14,682	3,055	10,326	4,819	1,748	34,294	7,863
VANDERBURGH CO	173,356	39,917	25,344	3,704	11,097	5,828	2,647	47,526	10,868
VIGO CO	103,009	23,177	14,178	2,151	6,650	3,429	1,510	27,424	6,275
WARRICK CO	57,090	13,751	6,615	1,276	3,663	1,898	818	14,978	3,450
TOTALS	**4,546,901**	**1,150,302**	**543,958**	**106,748**	**284,910**	**145,653**	**62,355**	**1,144,546**	**262,694**

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
JACKSON CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JOHNSON CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KNOX CO	DNC	DNC	DNC	DNC	DNC	11	0	0	3.7	F	13.8	PASS
LA PORTE CO	4	0	0	1.3	C	6	0	0	2.0	C	12.5	PASS
LAKE CO	9	0	0	3.0	D	22	0	0	7.3	F	14	PASS
MADISON CO	1	0	0	0.3	B	5	0	0	1.7	C	13.6	PASS
MARION CO	2	0	0	0.7	B	32	0	0	10.7	F	15.7	FAIL
MORGAN CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PERRY CO	4	0	0	1.3	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PORTER CO	6	1	0	2.5	D	5	0	0	1.7	C	12.9	PASS
POSEY CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SHELBY CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SPENCER CO	DNC	DNC	DNC	DNC	DNC	4	0	0	1.3	C	13.9	PASS
ST JOSEPH CO	6	0	0	2.0	C	6	1	0	2.5	D	13.2	PASS
TIPPECANOE CO	DNC	DNC	DNC	DNC	DNC	6	0	0	2.0	C	13.3	PASS
VANDERBURGH CO	3	0	0	1.0	C	8	0	0	2.7	D	14.8	PASS
VIGO CO	1	0	0	0.3	B	8	0	0	2.7	D	13.7	PASS
WARRICK CO	4	0	0	1.3	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Allen County, Lake County and Porter County improved their grades from an F to a D.
- Boone County, Clark County, Elkhart County, Hamilton County and La Porte County improved their grades from a D to a C.
- Carroll County's and Morgan County's grade each improved from a B to an A.
- Delaware County, Hancock County, Madison County and Marion County improved their grades from a D to a B.
- Greene County, Huntington County and Shelby County improved their grades from a C to an A.
- Hendricks County, Johnson County and Vigo County improved their grades from a C to a B.
- Perry County now has sufficient data to receive a grade.
- St. Joseph County's grade improved from an F to a C.
- Kosciusko County no longer has ozone monitors.

PM
- Allen County, Elkhart County, La Porte County, Madison County, Porter County and Tippecanoe County improved their grades from a D to a C.
- Vanderburgh County and Vigo County improved their grades from an F to a D.
- Dubois County, Lake County and Vanderburgh County improved their grades from failing to passing for their annual levels.
- Henry County no longer has sufficient data to grade for their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

IOWA

AT-RISK GROUPS

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 CO	126,106	28,498	17,780	2,645	6,319	4,216	1,877	33,952	7,766
BREMER CO	23,837	5,038	3,913	468	1,225	833	392	6,946	1,586
CERRO GORDO CO	44,384	9,707	7,842	901	2,272	1,575	772	13,486	3,077
CLINTON CO	49,782	11,747	7,964	1,090	2,484	1,709	813	14,354	3,281
EMMET CO	10,479	2,428	1,987	225	529	369	186	3,220	733
HARRISON CO	15,745	3,664	2,640	340	790	545	263	4,618	1,054
JOHNSON CO	118,038	24,290	9,644	2,254	5,941	3,681	1,299	25,776	5,935
LINN CO	201,853	49,794	25,542	4,621	9,831	6,546	2,846	51,933	11,907
MONTGOMERY CO	11,365	2,673	2,176	248	572	402	205	3,538	806
MUSCATINE CO	42,883	11,148	5,211	1,035	2,056	1,383	604	11,001	2,527
PALO ALTO CO	9,549	2,052	2,012	190	494	347	181	3,094	703
POLK CO	408,888	106,486	44,917	9,882	19,476	12,827	5,340	99,078	22,767
POTTAWATTAMIE CO	90,218	22,507	12,112	2,089	4,393	2,961	1,325	23,917	5,481
SCOTT CO	162,621	41,744	19,738	3,874	7,834	5,281	2,308	42,029	9,658
STORY CO	80,145	14,708	8,565	1,365	4,154	2,572	961	18,623	4,261
VAN BUREN CO	7,836	1,772	1,456	164	398	276	138	2,398	546
WARREN CO	43,926	10,319	5,549	958	2,173	1,451	630	11,496	2,638
WOODBURY CO	102,972	28,785	13,159	2,671	4,811	3,237	1,442	26,080	5,977
WRIGHT CO	13,419	3,166	2,736	294	678	483	254	4,327	985
TOTALS	**1,564,046**	**380,526**	**194,943**	**35,313**	**76,429**	**50,694**	**21,834**	**399,866**	**91,687**

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BLACK HAWK CO	DNC	DNC	DNC	DNC	DNC	5	0	0	1.7	C	10.8	PASS
BREMER CO	0	0	0	0.0	A	*	*	*	*	*	*	INC
CERRO GORDO CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
CLINTON CO	2	0	0	0.7	B	10	0	0	3.3	F	12.4	PASS
EMMET CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
HARRISON CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JOHNSON CO	DNC	DNC	DNC	DNC	DNC	9	0	0	3.0	D	11.9	PASS
LINN CO	0	0	0	0.0	A	11	0	0	3.7	F	10.5	PASS
MONTGOMERY CO	0	0	0	0.0	A	2	0	0	0.7	B	9.9	PASS
MUSCATINE CO	DNC	DNC	DNC	DNC	DNC	8	0	0	2.7	D	12.5	PASS
PALO ALTO CO	0	0	0	0.0	A	*	*	*	*	*	*	INC
POLK CO	0	0	0	0.0	A	7	0	0	2.3	D	10.2	PASS
POTTAWATTAMIE CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	10.9	PASS
SCOTT CO	0	0	0	0.0	A	15	0	0	5.0	F	11.5	PASS
STORY CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
VAN BUREN CO	0	0	0	0.0	A	1	0	0	0.3	B	*	INC
WARREN CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WOODBURY CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	10.1	PASS
WRIGHT CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	10.2	PASS

Ozone
- Van Buren County's grade improved from a B to an A.

PM
- Muscatine County and Polk County improved their grades from an F to a D.
- Brewer County and Bremer County now have PM monitors, but not enough data to grade.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

KANSAS

AT-RISK GROUPS

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 CO	112,123	21,544	9,942	1,999	7,612	3,523	1,246	24,708	5,674
JOHNSON CO	516,731	133,065	52,274	12,348	31,693	16,295	6,658	124,415	28,662
LEAVENWORTH CO	73,628	18,269	7,343	1,695	4,582	2,331	939	17,639	4,063
LINN CO	9,962	2,236	1,748	208	624	350	171	2,998	684
SEDGWICK CO	470,895	129,862	53,294	12,051	28,074	14,574	6,183	113,884	26,149
SHAWNEE CO	172,693	42,219	23,747	3,918	10,652	5,746	2,597	46,707	10,705
SUMNER CO	24,441	6,190	3,639	574	1,480	826	390	6,901	1,581
TREGO CO	2,993	620	690	58	188	114	62	1,043	237
WYANDOTTE CO	155,509	44,998	16,391	4,176	9,118	4,686	1,950	36,184	8,315
TOTALS	**1,538,975**	**399,003**	**169,068**	**37,027**	**94,022**	**48,445**	**20,195**	**374,479**	**86,070**

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
DOUGLAS CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JOHNSON CO	1	0	0	0.3	B	0	0	0	0.0	A	10.4	PASS
LEAVENWORTH CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LINN CO	0	0	0	0.0	A	0	0	0	0.0	A	10.3	PASS
SEDGWICK CO	0	0	0	0.0	A	1	0	0	0.3	B	10.1	PASS
SHAWNEE CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	*	INC
SUMNER CO	2	0	0	0.7	B	1	0	0	0.3	B	9.7	PASS
TREGO CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WYANDOTTE CO	3	1	0	1.5	C	6	0	0	2.0	C	12.5	PASS

Ozone
- Douglas County, Johnson County and Leavenworth County improved their grades from a C to a B.
- Sedgwick County's grade improved from a B to an A.
- Sumner County's grade dropped from an A to a B.

PM
- Johnson County's grade improved from a C to an A.
- Linn County's grade improved from a B to an A.
- Shawnee County's grade improved from a C to a B.
- Wyandotte County's grade improved from a D to a C.
- Shawnee County no longer has sufficient data to receive grade for their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

KENTUCKY

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
BELL CO	29,544	6,745	4,214	626	1,869	1,000	452	8,128	1,861
BOONE CO	110,080	29,549	9,339	2,742	6,481	3,318	1,270	24,354	5,618
BOYD CO	49,371	10,504	7,650	975	3,212	1,736	809	14,392	3,295
BULLITT CO	72,851	17,443	6,763	1,619	4,501	2,325	917	17,377	4,010
CAMPBELL CO	86,866	21,290	11,147	1,976	5,367	2,849	1,252	22,750	5,218
CARTER CO	27,365	6,484	3,597	602	1,700	900	394	7,176	1,644
CHRISTIAN CO	66,989	21,627	7,208	2,007	3,619	1,881	780	14,498	3,317
DAVIESS CO	93,613	23,225	13,348	2,155	5,788	3,109	1,424	25,485	5,835
EDMONSON CO	12,054	2,597	1,775	241	776	416	189	3,391	776
FAYETTE CO	270,789	59,718	28,538	5,542	16,956	8,752	3,487	65,826	15,133
FRANKLIN CO	48,183	10,635	6,149	987	3,094	1,644	720	13,106	3,012
GRAVES CO	37,872	9,034	6,007	838	2,369	1,283	606	10,723	2,449
GREENUP CO	37,374	8,127	6,056	754	2,424	1,319	627	11,075	2,533
HANCOCK CO	8,636	2,266	1,027	210	525	278	121	2,212	509
HARDIN CO	97,087	25,587	10,841	2,374	5,829	3,061	1,291	23,834	5,478

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BELL CO	0	0	0	0.0	A	0	0	0	0.0	A	14	PASS
BOONE CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BOYD CO	2	0	0	0.7	B	5	0	0	1.7	C	14.4	PASS
BULLITT CO	1	0	0	0.3	B	5	0	0	1.7	C	14.7	PASS
CAMPBELL CO	8	1	0	3.2	D	5	0	0	1.7	C	*	INC
CARTER CO	1	0	0	0.3	B	5	0	0	1.7	C	12	PASS
CHRISTIAN CO	1	0	0	0.3	B	3	0	0	1.0	C	12.8	PASS
DAVIESS CO	3	0	0	1.0	C	7	0	0	2.3	D	*	INC
EDMONSON CO	0	0	0	0.0	A	0	0	0	0.0	A	*	INC
FAYETTE CO	0	0	0	0.0	A	6	0	0	2.0	C	14.7	PASS
FRANKLIN CO	DNC	DNC	DNC	DNC	DNC	5	0	0	1.7	C	13.2	PASS
GRAVES CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GREENUP CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HANCOCK CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HARDIN CO	0	0	0	0.0	A	4	0	0	1.3	C	13.3	PASS

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
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KENTUCKY

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
HENDERSON CO	45,666	10,774	6,150	1,000	2,876	1,538	690	12,441	2,854
JEFFERSON CO	701,500	170,460	94,048	15,819	43,706	23,355	10,468	188,862	43,318
JESSAMINE CO	44,790	11,079	4,529	1,028	2,715	1,403	560	10,564	2,430
KENTON CO	154,911	40,432	16,689	3,752	9,360	4,910	2,056	38,053	8,758
LAUREL CO	56,979	13,792	6,818	1,280	3,518	1,851	790	14,514	3,332
LIVINGSTON CO	9,797	1,985	1,572	184	648	352	166	2,940	673
MADISON CO	79,015	17,355	8,163	1,611	4,893	2,502	971	18,522	4,251
MCCRACKEN CO	64,950	14,820	10,299	1,375	4,170	2,271	1,081	19,080	4,367
MCLEAN CO	9,844	2,251	1,498	209	626	338	157	2,798	640
OHIO CO	23,844	5,571	3,443	517	1,498	803	365	6,554	1,500
OLDHAM CO	55,285	13,072	4,294	1,213	3,471	1,789	688	13,170	3,055
PERRY CO	29,753	6,979	3,625	648	1,872	991	429	7,845	1,804
PIKE CO	66,860	14,786	8,551	1,372	4,297	2,286	1,004	18,256	4,196
PULASKI CO	59,749	13,432	9,643	1,246	3,800	2,056	969	17,168	3,920
SCOTT CO	41,605	10,672	3,536	990	2,464	1,252	468	9,071	2,090
SIMPSON CO	17,180	4,282	2,266	397	1,053	560	248	4,495	1,030
TRIGG CO	13,399	2,927	2,355	272	864	473	230	4,032	920
WARREN CO	101,266	23,076	10,997	2,141	6,269	3,240	1,302	24,496	5,625
TOTALS	**2,625,067**	**632,576**	**322,135**	**58,703**	**162,610**	**85,841**	**36,983**	**677,190**	**155,453**

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	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
HENDERSON CO	0	0	0	0.0	A	5	0	0	1.7	C	13.6	PASS
JEFFERSON CO	6	0	0	2.0	C	30	0	0	10.0	F	15.4	FAIL
JESSAMINE CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KENTON CO	3	0	0	1.0	C	8	0	0	2.7	D	14.2	PASS
LAUREL CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	*	INC
LIVINGSTON CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MADISON CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	13.5	PASS
MCCRACKEN CO	0	0	0	0.0	A	7	0	0	2.3	D	13.1	PASS
MCLEAN CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
OHIO CO	*	*	*	*	*	*	*	*	*	*	*	INC
OLDHAM CO	7	0	0	2.3	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PERRY CO	0	0	0	0.0	A	0	0	0	0.0	A	12.7	PASS
PIKE CO	0	0	0	0.0	A	2	0	0	0.7	B	13.3	PASS
PULASKI CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SCOTT CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SIMPSON CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TRIGG CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WARREN CO	0	0	0	0.0	A	3	0	0	1.0	C	13.9	PASS

Ozone
- Boone County, Edmondson County, Fayette County, Jessamine County and McCracken County improved their grades from a B to an A.
- Boyd County's grade improved from a D to a B.
- Campbell County's grade improved from an F to a D.
- Christian County's grade improved from a C to B.
- Daviess County's grade dropped from a B to a C.
- McLean County no longer has sufficient data to receive a grade.
- Oldham County's grade dropped from a C to a D.

PM
- Bell County's and Perry County's grade improved from a B to an A.
- Edmonson County now has sufficient data to receive a grade.
- McCracken County's grade dropped from a C to a D.
- Pike County's grade improved from a C to a B.
- Campbell County and Laurel County no longer have sufficient data to receive a grade for their annual levels.
- Fayette County's grade improved from failing to passing for their annual levels.
- Henderson County now has sufficient data to receive a grade for their annual levels.

Notes:
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LOUISIANA

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
ASCENSION PARISH	97,335	26,752	7,769	2,483	4,176	2,875	1,075	20,817	4,803
BEAUREGARD PARISH	35,130	8,847	4,337	821	1,545	1,129	488	8,921	2,046
BOSSIER PARISH	107,270	28,668	12,127	2,660	4,627	3,331	1,399	25,866	5,937
CADDO PARISH	253,118	64,548	34,183	5,990	11,067	8,206	3,670	66,268	15,172
CALCASIEU PARISH	184,524	47,485	23,065	4,407	8,055	5,923	2,585	47,102	10,803
CONCORDIA PARISH	19,460	4,941	2,964	459	850	649	306	5,416	1,238
EAST BATON ROUGE PARISH	429,073	107,217	45,592	9,950	18,974	13,504	5,503	102,950	23,664
GRANT PARISH	19,879	5,121	2,475	475	868	639	279	5,078	1,165
IBERVILLE PARISH	32,974	8,061	3,705	748	1,467	1,053	437	8,122	1,866
JEFFERSON PARISH	431,361	103,950	59,055	9,647	19,223	14,521	6,581	118,250	27,128
LAFAYETTE PARISH	203,091	52,126	20,769	4,837	8,904	6,327	2,558	48,004	11,042
LAFOURCHE PARISH	93,554	23,135	11,129	2,147	4,144	2,999	1,272	23,434	5,377
LIVINGSTON PARISH	114,805	29,966	10,266	2,781	5,013	3,483	1,340	25,646	5,908
ORLEANS PARISH	223,388	49,983	32,175	4,638	10,176	7,821	3,615	64,483	14,803
OUACHITA PARISH	149,259	39,860	18,070	3,699	6,432	4,656	1,996	36,623	8,391
PLAQUEMINES PARISH	22,512	6,358	2,497	590	951	700	300	5,508	1,267
POINTE COUPEE PARISH	22,648	5,590	3,248	519	1,000	756	348	6,214	1,423
RAPIDES PARISH	130,201	33,405	17,193	3,100	5,683	4,205	1,868	33,818	7,747
ST BERNARD PARISH	15,514	3,159	2,008	293	727	566	257	4,610	1,064
ST CHARLES PARISH	52,761	13,949	5,149	1,294	2,291	1,656	675	12,629	2,913

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HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
ASCENSION PARISH	9	0	0	3.0	D
BEAUREGARD PARISH	*	*	*	*	*
BOSSIER PARISH	5	0	0	1.7	C
CADDO PARISH	6	0	0	2.0	C
CALCASIEU PARISH	7	0	0	2.3	D
CONCORDIA PARISH	DNC	DNC	DNC	DNC	DNC
EAST BATON ROUGE PARISH	31	1	0	10.8	F
GRANT PARISH	*	*	*	*	*
IBERVILLE PARISH	23	1	0	8.2	F
JEFFERSON PARISH	4	0	0	1.3	C
LAFAYETTE PARISH	8	0	0	2.7	D
LAFOURCHE PARISH	3	0	0	1.0	C
LIVINGSTON PARISH	3	0	0	1.0	C
ORLEANS PARISH	*	*	*	*	*
OUACHITA PARISH	1	0	0	0.3	B
PLAQUEMINES PARISH	DNC	DNC	DNC	DNC	DNC
POINTE COUPEE PARISH	10	1	0	3.8	F
RAPIDES PARISH	DNC	DNC	DNC	DNC	DNC
ST BERNARD PARISH	*	*	*	*	*
ST CHARLES PARISH	4	0	0	1.3	C

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ASCENSION PARISH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BEAUREGARD PARISH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BOSSIER PARISH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CADDO PARISH	4	0	0	1.3	C	*	INC
CALCASIEU PARISH	3	0	0	1.0	C	11.1	PASS
CONCORDIA PARISH	0	0	0	0.0	A	11.4	PASS
EAST BATON ROUGE PARISH	7	0	0	2.3	D	13.6	PASS
GRANT PARISH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
IBERVILLE PARISH	3	0	0	1.0	C	13	PASS
JEFFERSON PARISH	8	0	0	2.7	D	11.7	PASS
LAFAYETTE PARISH	2	0	0	0.7	B	11	PASS
LAFOURCHE PARISH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LIVINGSTON PARISH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ORLEANS PARISH	7	0	0	2.3	D	*	INC
OUACHITA PARISH	4	0	0	1.3	C	11.9	PASS
PLAQUEMINES PARISH	*	*	*	*	*	*	INC
POINTE COUPEE PARISH	DNC	DNC	DNC	DNC	DNC	DNC	DNC
RAPIDES PARISH	0	0	0	0.0	A	11	PASS
ST BERNARD PARISH	5	0	0	1.7	C	*	INC
ST CHARLES PARISH	*	*	*	*	*	*	INC

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
ST JAMES PARISH	21,721	5,781	2,667	536	937	691	302	5,495	1,261
ST JOHN THE BAPTIST PARISH	48,537	13,692	4,153	1,271	2,060	1,455	568	10,805	2,494
ST MARY PARISH	51,867	14,150	6,554	1,313	2,216	1,650	733	13,263	3,042
ST TAMMANY PARISH	230,605	58,032	26,578	5,385	10,162	7,480	3,202	58,768	13,518
TANGIPAHOA PARISH	113,137	29,133	12,359	2,704	4,949	3,515	1,442	26,904	6,176
TERREBONNE PARISH	109,348	29,503	11,817	2,738	4,704	3,386	1,408	26,130	6,005
WEST BATON ROUGE PARISH	22,463	5,665	2,364	526	991	715	295	5,485	1,263
TOTALS	**3,235,535**	**819,077**	**384,268**	**76,010**	**142,190**	**103,891**	**44,498**	**816,610**	**187,514**

American Lung Association of Louisiana
2325 Severn Avenue, Suite 8
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(504) 828-5864
www.lungusa.org/louisiana

HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
ST JAMES PARISH	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ST JOHN THE BAPTIST PARISH	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ST MARY PARISH	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ST TAMMANY PARISH	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
TANGIPAHOA PARISH	DNC	DNC	DNC	DNC	DNC	4	0	0	1.3	C	12.2	PASS
TERREBONNE PARISH	DNC	DNC	DNC	DNC	DNC	1	1	0	0.8	B	10.8	PASS
WEST BATON ROUGE PARISH	11	0	0	3.7	F	4	0	0	1.3	C	13.6	PASS

Ozone
- Ascension Parish's grade dropped from a C to a D.
- Beauregard Parish, Grant Parish, Orleans Parish, St. Bernard Parish and St. Mary Parish no longer have sufficient data to receive a grade.
- Calcasieu Parish's grade improved from an F to a D.
- Jefferson Parish's grade improved from a D to a C.
- Lafourche Parish's and St. James Parish's grade each dropped from a B to a C.
- Pointe Coupee Parish's grade dropped from a D to an F.

PM
- Caddo Parish's grade dropped from an A to a C.
- Calcasieu Parish, Iberville Parish, Ouachita Parish and St. Bernard Parish's each dropped grade from a B to a C.
- East Baton Rouge Parish and Jefferson Parish dropped their grades from a C to a D.
- Rapides Parish's grade improved from a B to an A.
- Calcasieu Parish, Concordia Parish, East Baton Rouge Parish, Iberville Parish, Lafayette Parish, Ouachita Parish, Rapides Parish, Tangipahoa Parish, Terrebonne Parish and West Baton Rouge Parish now have sufficient data to receive a grade for their annual levels.
- Orleans Parish and St. Bernard Parish no longer have sufficient data to receive a grade for their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

MAINE

AT-RISK GROUPS

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 CO	107,552	24,055	14,966	2,232	8,019	3,643	1,628	29,401	6,736
AROOSTOOK CO	73,008	14,530	12,673	1,348	5,550	2,667	1,294	22,691	5,187
CUMBERLAND CO	274,598	59,815	37,237	5,551	20,536	9,510	4,263	76,899	17,661
HANCOCK CO	53,797	10,637	8,560	987	4,099	1,960	926	16,392	3,757
KENNEBEC CO	121,068	25,392	17,456	2,356	9,138	4,257	1,939	34,778	7,978
KNOX CO	41,096	8,152	7,106	757	3,123	1,508	733	12,839	2,937
OXFORD CO	57,118	11,894	8,842	1,104	4,303	2,040	956	16,968	3,889
PENOBSCOT CO	147,180	30,440	20,011	2,825	11,203	5,103	2,257	40,924	9,390
SAGADAHOC CO	36,837	8,401	4,856	780	2,713	1,268	569	10,258	2,359
WASHINGTON CO	33,288	6,922	5,902	642	2,501	1,205	591	10,323	2,358
YORK CO	202,232	44,848	28,166	4,162	15,017	7,023	3,191	57,280	13,152
TOTALS	**1,147,774**	**245,086**	**165,775**	**22,744**	**86,202**	**40,183**	**18,347**	**328,755**	**75,403**

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

HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
ANDROSCOGGIN CO	1	0	0	0.3	B
AROOSTOOK CO	*	*	*	*	*
CUMBERLAND CO	0	0	0	0.0	A
HANCOCK CO	5	0	0	1.7	C
KENNEBEC CO	0	0	0	0.0	A
KNOX CO	1	0	0	0.3	B
OXFORD CO	0	0	0	0.0	A
PENOBSCOT CO	0	0	0	0.0	A
SAGADAHOC CO	3	0	0	1.0	C
WASHINGTON CO	1	0	0	0.3	B
YORK CO	1	0	0	0.3	B

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ANDROSCOGGIN CO	1	0	0	0.3	B	9.8	PASS
AROOSTOOK CO	2	0	0	0.7	B	9.7	PASS
CUMBERLAND CO	0	0	0	0.0	A	11	PASS
HANCOCK CO	0	0	0	0.0	A	5.6	PASS
KENNEBEC CO	0	0	0	0.0	A	9.8	PASS
KNOX CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
OXFORD CO	1	0	0	0.3	B	10.3	PASS
PENOBSCOT CO	1	0	0	0.3	B	8.9	PASS
SAGADAHOC CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WASHINGTON CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
YORK CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Androscoggin County and Washington County now have sufficient data to grade.
- Hancock County's grade improved from a D to a C.
- Kennebec County and Penobscot County grade each improved from a B to an A.
- Knox County's and York County's grades each improved from a C to a B.
- Aroostook County now has ozone monitors, but not enough data to grade.

PM
- Androscoggin County's grade improved from a C to a B.
- Cumberland County's grade improved from a C to an A.
- Kennebec County's grade improved from a B to an A.
- York County no longer has PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

MARYLAND

AT-RISK GROUPS

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 CO	509,300	122,612	55,118	11,378	34,114	16,572	6,898	127,978	29,471
BALTIMORE CITY	631,366	156,522	76,639	14,525	41,752	20,297	8,682	159,419	36,569
BALTIMORE CO	787,384	176,828	112,792	16,410	53,329	26,734	12,074	217,237	49,737
CALVERT CO	88,804	21,977	8,364	2,039	5,922	2,824	1,127	21,255	4,905
CARROLL CO	170,260	41,075	19,110	3,812	11,379	5,568	2,349	43,358	9,980
CECIL CO	99,506	24,005	10,646	2,228	6,674	3,173	1,294	24,199	5,564
CHARLES CO	140,416	36,568	11,331	3,394	9,251	4,282	1,620	31,221	7,213
FREDERICK CO	222,938	56,602	21,952	5,253	14,724	7,016	2,828	53,128	12,242
GARRETT CO	29,859	6,605	4,824	613	2,020	1,033	486	8,621	1,969
HARFORD CO	241,402	60,433	26,413	5,608	15,951	7,777	3,263	60,350	13,892
KENT CO	19,983	3,650	3,842	339	1,410	730	358	6,260	1,424
MONTGOMERY CO	932,131	229,742	110,744	21,320	61,678	30,693	13,302	243,005	55,901
PRINCE GEORGE'S CO	841,315	216,435	72,841	20,085	55,561	25,896	9,983	190,929	44,063
WASHINGTON CO	143,748	31,667	19,625	2,939	9,832	4,777	2,082	37,964	8,684
TOTALS	**4,858,412**	**1,184,721**	**554,241**	**109,942**	**323,597**	**157,374**	**66,348**	**1,224,923**	**281,614**

American Lung Association of Maryland
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Hunt Valley, MD 21031
(410) 560-2120
www.lungusa.org/maryland

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ANNE ARUNDEL CO	20	2	0	7.7	F	9	0	0	3.0	D	14.9	PASS
BALTIMORE CITY	*	*	*	*	*	50	0	0	16.7	F	15.9	FAIL
BALTIMORE CO	19	3	0	7.8	F	27	0	0	9.0	F	14.8	PASS
CALVERT CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CARROLL CO	7	0	0	2.3	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CECIL CO	17	1	0	6.2	F	2	0	0	0.7	B	12.8	PASS
CHARLES CO	11	0	0	3.7	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FREDERICK CO	6	0	0	2.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GARRETT CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HARFORD CO	29	3	0	11.2	F	5	0	0	1.7	C	12.6	PASS
KENT CO	6	0	0	2.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MONTGOMERY CO	9	0	0	3.0	D	3	0	0	1.0	C	12.5	PASS
PRINCE GEORGE'S CO	23	0	0	7.7	F	9	0	0	3.0	D	13.1	PASS
WASHINGTON CO	4	0	0	1.3	C	4	0	0	1.3	C	13.8	PASS

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

PM
- Anne Arundel County's grade improved from an F to D.
- Cecil County's grade improved from a C to a B.
- Harford County's grade improved from a D to a C.
- Anne Arundel County and Baltimore County improved their grades from failing to passing for their annual levels.
- Cecil County now has sufficient data to grade their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
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MASSACHUSETTS

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
BARNSTABLE CO	224,816	40,424	52,165	3,751	17,577	8,640	4,610	78,274	17,762
BERKSHIRE CO	131,117	25,967	23,331	2,410	10,224	4,760	2,314	40,547	9,255
BRISTOL CO	545,379	125,692	73,767	11,664	41,440	18,176	8,033	145,695	33,375
DUKES CO	15,515	2,967	2,288	275	1,235	565	260	4,645	1,067
ESSEX CO	735,958	176,249	99,388	16,356	55,204	24,606	11,033	199,024	45,643
HAMPDEN CO	460,520	111,130	63,716	10,313	34,425	15,216	6,820	123,051	28,170
HAMPSHIRE CO	153,471	25,693	18,779	2,384	12,741	5,341	2,188	40,852	9,377
MIDDLESEX CO	1,467,016	323,225	187,650	29,995	113,350	49,266	21,298	389,486	89,367
NORFOLK CO	654,753	150,878	91,307	14,001	49,632	22,283	10,089	181,346	41,585
PLYMOUTH CO	493,623	121,809	59,659	11,304	36,863	16,262	7,083	129,147	29,696
SUFFOLK CO	687,610	140,383	77,099	13,028	54,733	22,067	8,632	164,178	37,591
WORCESTER CO	784,992	188,163	95,730	17,462	59,214	25,654	11,009	201,890	46,346
TOTALS	**6,354,770**	**1,432,580**	**844,879**	**132,943**	**486,639**	**212,835**	**93,369**	**1,698,134**	**389,233**

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
BARNSTABLE CO	11	2	0	4.7	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BERKSHIRE CO	7	0	0	2.3	D	4	0	0	1.3	C	10.5	PASS
BRISTOL CO	5	1	0	2.2	D	2	0	0	0.7	B	9.5	PASS
DUKES CO	5	3	0	3.2	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ESSEX CO	10	0	0	3.3	F	4	0	0	1.3	C	9.7	PASS
HAMPDEN CO	13	1	0	4.8	F	9	0	0	3.0	D	12	PASS
HAMPSHIRE CO	14	1	0	5.2	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MIDDLESEX CO	4	0	0	1.3	C	*	*	*	*	*	*	INC
NORFOLK CO	8	0	0	2.7	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PLYMOUTH CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	9.8	PASS
SUFFOLK CO	6	0	0	2.0	C	11	0	0	3.7	F	13.1	PASS
WORCESTER CO	7	0	0	2.3	D	5	0	0	1.7	C	11.3	PASS

Ozone
- Bristol County and Norfolk County improved their grades from an F to a D.
- Dukes County now has sufficient data to receive a grade.
- Suffolk County's grade improved from a D to a C.
- Worcester County's grade dropped from a C to a D.

PM
- Essex County and Worcester County improved their grades from a D to a C.
- Hampden County's grade improved from an F to a D.
- Plymouth County's grade improved from a C to a B.
- Worcester County now has sufficient data to grade their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

MICHIGAN

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
ALLEGAN CO	113,501	29,089	12,875	2,699	8,017	3,625	1,536	28,300	6,506
BAY CO	108,390	24,491	16,456	2,273	7,857	3,758	1,753	31,169	7,138
BENZIE CO	17,652	3,743	3,231	347	1,290	626	307	5,368	1,222
BERRIEN CO	161,705	39,753	24,109	3,689	11,419	5,444	2,539	45,154	10,334
CASS CO	51,329	11,607	7,014	1,077	3,740	1,771	801	14,403	3,308
CHIPPEWA CO	38,674	7,400	5,222	687	2,963	1,323	565	10,384	2,377
CLINTON CO	69,909	17,043	8,089	1,582	5,016	2,298	985	18,067	4,158
DICKINSON CO	27,447	5,994	5,204	556	1,981	990	500	8,645	1,971
GENESEE CO	441,966	114,830	53,602	10,656	30,960	14,191	6,169	112,577	25,849
HURON CO	34,143	7,173	6,963	666	2,479	1,253	647	11,107	2,528
INGHAM CO	276,898	62,538	27,626	5,804	20,542	8,805	3,436	65,404	15,042
IRON CO	12,377	2,235	2,880	207	925	479	257	4,357	989
KALAMAZOO CO	240,720	55,941	28,385	5,191	17,564	7,808	3,266	60,481	13,879
KENT CO	599,524	163,263	61,768	15,151	41,609	18,349	7,493	140,070	32,204
LEELANAU CO	22,112	4,482	4,249	416	1,626	826	420	7,248	1,655
LENAWEE CO	102,191	23,930	13,501	2,221	7,388	3,411	1,508	27,348	6,272

American Lung Association of Michigan
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(248) 784-2000
www.lungusa.org/michigan

HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
ALLEGAN CO	13	3	0	5.8	F	14	0	0	4.7	F	11.7	PASS
BAY CO	DNC	DNC	DNC	DNC	DNC	6	0	0	2.0	C	10.8	PASS
BENZIE CO	7	0	0	2.3	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BERRIEN CO	7	0	0	2.3	D	1	0	0	0.3	B	11.4	PASS
CASS CO	5	0	0	1.7	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHIPPEWA CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	*	INC
CLINTON CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DICKINSON CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
GENESEE CO	2	0	0	0.7	B	4	0	0	1.3	C	11.4	PASS
HURON CO	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
INGHAM CO	3	0	0	1.0	C	5	0	0	1.7	C	12	PASS
IRON CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
KALAMAZOO CO	2	0	0	0.7	B	3	0	0	1.0	C	12.6	PASS
KENT CO	5	0	0	1.7	C	20	1	0	7.2	F	12.8	PASS
LEELANAU CO	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LENAWEE CO	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
MACOMB CO	832,861	193,803	111,277	17,985	60,319	27,744	12,256	222,326	50,957
MANISTEE CO	25,067	5,032	4,683	467	1,856	913	452	7,874	1,795
MASON CO	29,045	6,254	5,253	580	2,113	1,037	511	8,917	2,034
MISSAUKEE	15,197	3,504	2,330	325	1,095	516	239	4,259	973
MONROE CO	155,035	37,173	18,043	3,450	11,188	5,094	2,172	39,919	9,181
MUSKEGON CO	175,231	44,391	22,035	4,119	12,371	5,655	2,468	44,977	10,315
OAKLAND CO	1,214,255	295,389	142,650	27,412	87,065	40,410	17,544	320,260	73,749
OTTAWA CO	257,671	67,266	27,556	6,242	18,150	7,978	3,263	60,962	14,002
SAGINAM CO	206,300	51,349	28,692	4,765	14,564	6,858	3,124	56,029	12,840
SCHOOLCRAFT CO	8,744	1,791	1,711	166	642	319	162	2,793	636
ST CLAIR CO	171,725	41,245	21,669	3,828	12,340	5,671	2,477	45,126	10,359
WASHTENAW CO	344,047	74,097	30,330	6,876	26,002	10,923	4,070	78,936	18,192
WAYNE CO	1,971,853	540,672	229,421	50,174	135,600	61,865	26,673	488,251	112,146
TOTALS	**7,725,569**	**1,935,478**	**926,824**	**179,612**	**548,680**	**249,938**	**107,595**	**1,970,712**	**452,611**

American Lung Association of Michigan
25900 Greenfield Road, Suite 401
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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
MACOMB CO	10	0	0	3.3	F	7	1	0	2.8	D	12.5	PASS
MANISTEE CO	*	*	*	*	*	*	*	*	*	*	*	INC
MASON CO	6	0	0	2.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MISSAUKEE	2	0	0	0.7	B	0	0	0	0.0	A	8.2	PASS
MONROE CO	DNC	DNC	DNC	DNC	DNC	8	1	0	3.2	D	13.8	PASS
MUSKEGON CO	14	1	0	5.2	F	7	0	0	2.3	D	11.5	PASS
OAKLAND CO	0	0	0	0.0	A	9	0	0	3.0	D	13.4	PASS
OTTAWA CO	7	1	0	2.8	D	6	0	0	2.0	C	12.4	PASS
SAGINAW CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
SCHOOLCRAFT CO	6	0	0	2.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ST CLAIR CO	5	1	0	2.2	D	10	1	0	3.8	F	13.1	PASS
WASHTENAW CO	2	0	0	0.7	B	7	0	0	2.3	D	13.6	PASS
WAYNE CO	3	0	0	1.0	C	45	4	0	17.0	F	17.2	FAIL

Ozone
- Benzie County, Berrien County, Ottawa County and St. Clair County improved their grades from an F to a D.
- Cass County's grade improved from an F to a C.
- Clinton County's grade improved from a C to an A.
- Genesee County's and Washtenaw County's grade improved from a D to a B.
- Huron County, Ingham County, Kent County, Lenawee County, Mason County, Schoolcraft County and Wayne County improved their grade from a D to a C.
- Kalamazoo County's and Missaukee County's grade improved from a C to a B.
- Leelanau County's grade dropped from a B to a C.
- Oakland County's grade improved from a D to an A.
- Manistee County now has ozone monitors, but not enough data to grade.

PM
- Berrien County's grade improved from a C to a B.
- Monroe County's and Oakland County's grade improved from an F to a D.
- Ottawa County's grade improved from a D to a C.
- Saginam County no longer has sufficient data to receive a grade.
- Chippewa County and Saginaw County no longer have sufficient data to receive a grade for their annual levels.
- Manistee County now has PM monitors, but not enough data to grade.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

MINNESOTA

AT-RISK GROUPS

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
ANOKA CO	327,005	86,536	26,516	8,031	18,862	10,022	3,844	73,663	17,032
BECKER CO	32,230	7,490	5,226	695	1,897	1,105	525	9,280	2,119
CARLTON CO	34,116	7,511	4,954	697	2,053	1,163	526	9,458	2,164
CASS CO	29,036	6,334	5,309	588	1,732	1,029	509	8,865	2,020
CROW WING CO	61,009	13,591	10,528	1,261	3,635	2,105	1,010	17,787	4,052
DAKOTA CO	388,001	104,523	31,506	9,700	22,218	11,870	4,583	87,588	20,257
GOODHUE CO	45,807	10,556	6,910	980	2,710	1,569	729	12,975	2,970
HENNEPIN CO	1,122,093	268,737	122,599	24,939	66,409	36,534	15,220	282,279	64,984
LAKE CO	10,966	2,020	2,236	187	679	415	212	3,649	831
LYON CO	24,640	5,854	3,605	543	1,451	814	368	6,620	1,512
MILLE LACS CO	26,169	6,052	4,046	562	1,552	872	400	7,158	1,632
OLMSTED CO	137,521	35,045	15,904	3,252	7,968	4,373	1,850	34,105	7,831
RAMSEY CO	493,215	124,008	62,437	11,508	28,585	16,026	7,026	127,809	29,320
SCOTT CO	124,092	35,616	7,683	3,305	7,011	3,492	1,200	24,081	5,569
ST LOUIS CO	196,067	39,095	30,781	3,628	12,068	6,985	3,244	57,772	13,222
STEARNS CO	144,096	33,136	16,838	3,075	8,664	4,607	1,890	35,277	8,084
WASHINGTON CO	225,000	59,140	18,958	5,488	12,975	7,019	2,755	52,304	12,100
WRIGHT CO	114,787	31,649	9,632	2,937	6,541	3,373	1,269	24,518	5,648
TOTALS	**3,535,850**	**876,893**	**385,668**	**81,376**	**207,011**	**113,374**	**47,160**	**875,188**	**201,347**

American Lung Association of Minnesota
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www.lungusa.org/minnesota

HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
ANOKA CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BECKER CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CARLTON CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CASS CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	5.8	PASS
CROW WING CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DAKOTA CO	*	*	*	*	*	1	0	0	0.3	B	9.1	PASS
GOODHUE CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HENNEPIN CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	9.7	PASS
LAKE CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LYON CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MILLE LACS CO	1	0	0	0.3	B	1	0	0	0.3	B	6.4	PASS
OLMSTED CO	0	0	0	0.0	A	1	0	0	0.3	B	*	INC
RAMSEY CO	DNC	DNC	DNC	DNC	DNC	3	1	0	1.5	C	11.2	PASS
SCOTT CO	1	0	0	0.3	B	1	0	0	0.3	B	8.8	PASS
ST LOUIS CO	0	0	0	0.0	A	1	0	0	0.3	B	7.4	PASS
STEARNS CO	0	0	0	0.0	A	2	0	0	0.7	B	8.4	PASS
WASHINGTON CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WRIGHT CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Anoka County's grade improved from a B to an A.
- Crow Wing County now has sufficient data to grade.

PM
- Olmsted County no longer has sufficient data to grade their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

MISSISSIPPI

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
ADAMS CO	32,626	8,105	5,412	752	1,742	1,121	548	9,585	2,190
BOLIVAR CO	38,352	10,577	4,159	982	1,914	1,170	485	9,017	2,070
DESOTO CO	144,706	38,704	13,419	3,592	7,278	4,393	1,723	32,728	7,537
FORREST CO	76,372	18,528	8,868	1,719	3,927	2,373	965	18,068	4,134
HANCOCK CO	40,421	9,652	6,029	896	2,187	1,395	657	11,639	2,669
HARRISON CO	171,875	45,976	21,506	4,267	8,849	5,544	2,465	44,605	10,244
HINDS CO	249,012	68,113	27,013	6,321	12,542	7,703	3,223	59,676	13,716
JACKSON CO	130,577	34,389	15,244	3,191	6,757	4,211	1,830	33,396	7,682
JONES CO	66,715	16,714	9,496	1,551	3,480	2,179	988	17,756	4,060
LAUDERDALE CO	76,724	20,274	10,910	1,881	3,946	2,482	1,139	20,370	4,659
LEE CO	79,714	21,354	9,696	1,982	4,061	2,519	1,094	19,977	4,583
LOWNDES CO	59,773	16,501	7,308	1,531	3,021	1,881	825	15,003	3,442
MADISON CO	87,419	23,607	8,978	2,191	4,400	2,680	1,092	20,428	4,697
MARSHALL CO	35,853	8,951	4,405	831	1,868	1,156	498	9,119	2,092
PEARL RIVER CO	57,099	14,058	7,782	1,305	3,000	1,874	838	15,129	3,464
RANKIN CO	135,830	33,156	14,251	3,077	7,081	4,312	1,750	32,795	7,543
SCOTT CO	28,790	7,904	3,628	733	1,452	902	397	7,210	1,652
WARREN CO	49,308	13,765	5,738	1,277	2,497	1,559	681	12,405	2,853
TOTALS	**1,561,166**	**410,328**	**183,842**	**38,078**	**80,001**	**49,455**	**21,198**	**388,907**	**89,287**

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS CO	0	0	0	0.0	A	2	0	0	0.7	B	11.1	PASS
BOLIVAR CO	0	0	0	0.0	A	2	0	0	0.7	B	12.2	PASS
DESOTO CO	8	0	0	2.7	D	4	0	0	1.3	C	12.3	PASS
FORREST CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	13.5	PASS
HANCOCK CO	*	*	*	*	*	2	0	0	0.7	B	*	INC
HARRISON CO	8	0	0	2.7	D	13	0	0	4.3	F	12.3	PASS
HINDS CO	1	0	0	0.3	B	3	0	0	1.0	C	12.5	PASS
JACKSON CO	4	0	0	1.3	C	2	0	0	0.7	B	12.1	PASS
JONES CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	14.2	PASS
LAUDERDALE CO	1	0	0	0.3	B	2	0	0	0.7	B	13.1	PASS
LEE CO	0	0	0	0.0	A	6	0	0	2.0	C	12.4	PASS
LOWNDES CO	DNC	DNC	DNC	DNC	DNC	4	0	0	1.3	C	12.5	PASS
MADISON CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MARSHALL CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PEARL RIVER CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
RANKIN CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
SCOTT CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
WARREN CO	*	*	*	*	*	*	*	*	*	*	*	INC

Ozone
- Adams County's grade improved from a C to an A.
- Desoto County's grade dropped from a C to a D.
- Hancock County no longer has sufficient data to grade.
- Hinds County's grade dropped from an A to a B.

PM
- Pearl River County, Rankin County, Scott County and Warren County no longer have sufficient data to grade.
- Pearl River County, Scott County and Warren County no longer have sufficient data to grade their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

MISSOURI

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
BOONE CO	146,048	32,491	13,382	3,015	10,048	4,547	1,692	32,834	7,550
BUCHANAN CO	84,955	19,937	12,456	1,850	5,623	2,822	1,278	22,978	5,250
CASS CO	95,781	24,645	10,979	2,287	6,174	3,036	1,282	23,657	5,433
CEDAR CO	13,998	3,195	2,853	296	917	499	258	4,428	1,006
CLAY CO	206,957	52,121	22,107	4,837	13,462	6,561	2,703	50,356	11,583
CLINTON CO	20,671	4,872	2,904	452	1,360	693	313	5,636	1,291
GREENE CO	254,779	55,404	35,211	5,141	17,338	8,499	3,713	67,637	15,467
JACKSON CO	664,078	171,376	80,956	15,904	42,582	21,314	9,251	168,925	38,774
JASPER CO	112,505	28,924	15,023	2,684	7,252	3,587	1,583	28,726	6,570
JEFFERSON CO	216,469	54,271	21,564	5,036	14,089	6,876	2,790	52,275	12,049
LINCOLN CO	50,123	13,080	4,879	1,214	3,247	1,530	604	11,440	2,631
MARIES CO	9,099	2,114	1,438	196	599	311	146	2,591	592
MERCER CO	3,584	795	739	74	236	131	68	1,166	265
MONROE CO	9,396	2,189	1,614	203	616	325	158	2,764	630
PERRY CO	18,639	4,501	2,892	418	1,217	623	291	5,170	1,180
PLATTE CO	83,061	19,965	7,920	1,853	5,463	2,695	1,088	20,426	4,718
ST CHARLES CO	338,719	87,740	33,467	8,142	21,872	10,545	4,243	79,776	18,370
ST LOUIS CITY	347,181	90,713	41,583	8,418	22,250	10,974	4,703	86,297	19,795
ST LOUIS CO	1,000,510	238,349	141,057	22,119	65,151	34,089	15,650	279,865	64,203
STE GENEVIEVE CO	18,248	4,168	2,640	387	1,210	622	284	5,083	1,164
TOTALS	**3,694,801**	**910,850**	**455,664**	**84,527**	**240,706**	**120,276**	**52,099**	**952,032**	**218,522**

American Lung Association of the Central States
1118 Hampton Avenue
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HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
BOONE CO	DNC	DNC	DNC	DNC	DNC
BUCHANAN CO	DNC	DNC	DNC	DNC	DNC
CASS CO	3	0	0	1.0	C
CEDAR CO	1	0	0	0.3	B
CLAY CO	22	1	0	7.8	F
CLINTON CO	8	0	0	2.7	D
GREENE CO	1	0	0	0.3	B
JACKSON CO	DNC	DNC	DNC	DNC	DNC
JASPER CO	DNC	DNC	DNC	DNC	DNC
JEFFERSON CO	6	0	0	2.0	C
LINCOLN CO	*	*	*	*	*
MARIES CO	DNC	DNC	DNC	DNC	DNC
MERCER CO	DNC	DNC	DNC	DNC	DNC
MONROE CO	1	0	0	0.3	B
PERRY CO	4	0	0	1.3	C
PLATTE CO	*	*	*	*	*
ST CHARLES CO	26	0	0	8.7	F
ST LOUIS CITY	10	0	0	3.3	F
ST LOUIS CO	18	1	0	6.5	F
STE GENEVIEVE CO	3	0	0	1.0	C

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BOONE CO	2	0	0	0.7	B	*	INC
BUCHANAN CO	4	0	0	1.3	C	*	INC
CASS CO	0	0	0	0.0	A	10.5	PASS
CEDAR CO	0	0	0	0.0	A	*	INC
CLAY CO	1	0	0	0.3	B	10.7	PASS
CLINTON CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GREENE CO	1	0	0	0.3	B	11.5	PASS
JACKSON CO	5	0	0	1.7	C	12.5	PASS
JASPER CO	*	*	*	*	*	*	INC
JEFFERSON CO	19	0	0	6.3	F	13.5	PASS
LINCOLN CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MARIES CO	*	*	*	*	*	*	INC
MERCER CO	*	*	*	*	*	*	INC
MONROE CO	1	0	0	0.3	B	*	INC
PERRY CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PLATTE CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ST CHARLES CO	6	0	0	2.0	C	12.9	PASS
ST LOUIS CITY	24	0	0	8.0	F	14.4	PASS
ST LOUIS CO	11	0	0	3.7	F	13.2	PASS
STE GENEVIEVE CO	3	0	0	1.0	C	13.1	PASS

Ozone
- Clinton County and Perry County now have sufficient data to grade.
- Jefferson County's grade improved from a D to a C.
- Platte County no longer has sufficient data to grade.

PM
- Boone County's grade improved from a C to a B.
- Cass County and Cedar County improved their grade from a B to an A.
- Jackson and St. Charles Counties improved their grade from a D to a C.
- Boone County, Cedar County and Monroe County no longer have sufficient data to grade for annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

MONTANA

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
CASCADE CO	79,385	19,921	11,868	1,849	4,861	2,665	1,250	22,182	5,077
FLATHEAD CO	85,314	19,749	10,969	1,833	5,364	2,915	1,300	23,490	5,403
GALLATIN CO	80,921	17,010	7,124	1,579	5,237	2,598	972	18,818	4,340
LAKE CO	28,606	7,065	4,348	656	1,761	970	458	8,105	1,855
LEWIS AND CLARK CO	59,302	13,448	7,379	1,248	3,752	2,039	901	16,335	3,761
LINCOLN CO	19,226	4,023	3,492	373	1,242	716	360	6,234	1,427
MISSOULA CO	101,417	21,426	10,634	1,988	6,551	3,361	1,352	25,416	5,853
RAVALLI CO	40,582	9,053	6,669	840	2,576	1,445	699	12,267	2,808
ROSEBUD CO	9,261	2,816	949	261	528	289	126	2,299	531
SANDERS CO	11,138	2,191	2,082	203	731	421	212	3,668	839
SILVER BOW CO	32,801	7,352	5,436	682	2,079	1,153	555	9,757	2,230
YELLOWSTONE CO	138,213	33,095	18,737	3,071	8,597	4,628	2,080	37,489	8,598
TOTALS	**686,166**	**157,149**	**89,687**	**14,583**	**43,278**	**23,201**	**10,263**	**186,060**	**42,722**

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

HIGH OZONE DAYS 2004-2006

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

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
CASCADE CO	0	0	0	0.0	A	5.3	PASS
FLATHEAD CO	2	0	0	0.7	B	9.8	PASS
GALLATIN CO	5	1	0	2.2	D	4.2	PASS
LAKE CO	*	*	*	*	*	*	INC
LEWIS AND CLARK CO	6	0	0	2.0	C	7.9	PASS
LINCOLN CO	17	1	0	6.2	F	15	PASS
MISSOULA CO	13	0	0	4.3	F	10.4	PASS
RAVALLI CO	8	0	0	2.7	D	8.6	PASS
ROSEBUD CO	*	*	*	*	*	*	INC
SANDERS CO	0	0	0	0.0	A	6.7	PASS
SILVER BOW CO	11	0	0	3.7	F	9.8	PASS
YELLOWSTONE CO	0	2	1	1.7	C	8.7	PASS

Ozone
- Cascade County's grade improved from a C to an A.
- Flathead County's grade improved from an F to a B.
- Gallatin County's grade dropped from a C to a D.
- Lake County and Rosebud Counties no longer have sufficient data to grade.
- Lewis and Clark County's grade improved from a D to a C.
- Ravalli County's grade improved from an F to a D.
- Sanders County's grade improved from a B to an A.
- Silver Bow County's grade dropped from a D to an F.

PM
- Gallatin County, Ravalli County and Lewis and Clark Counties now have sufficient data to grade their annual levels.
- Lake County no longer has sufficient data to grade their annual levels.
- Lincoln County's grade improved from failing to passing for their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

NEBRASKA

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
CASS CO	25,963	6,493	3,100	603	1,446	846	366	6,687	1,537
DOUGLAS CO	492,003	131,180	52,176	12,174	26,858	15,216	6,260	116,679	26,817
HALL CO	55,555	15,043	7,555	1,396	3,023	1,771	801	14,401	3,296
LANCASTER CO	267,135	62,843	27,771	5,832	15,244	8,410	3,331	63,025	14,476
LINCOLN CO	35,865	8,746	5,265	812	2,023	1,199	553	9,875	2,259
SARPY CO	142,637	40,473	11,158	3,756	7,596	4,152	1,545	29,984	6,918
SCOTTS BLUFF CO	36,546	9,118	6,209	846	2,052	1,241	606	10,605	2,419
WASHINGTON CO	20,044	4,710	2,641	437	1,141	671	297	5,386	1,236
TOTALS	**1,075,748**	**278,606**	**115,875**	**25,855**	**59,382**	**33,505**	**13,760**	**256,643**	**58,958**

American Lung Association of the Central States
7101 Newport Avenue, #303
Omaha, NE 68152
(402) 572-3030
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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
CASS CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
DOUGLAS CO	0	0	0	0.0	A	9	0	0	3.0	D	9.8	PASS
HALL CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	*	INC
LANCASTER CO	0	0	0	0.0	A	2	0	0	0.7	B	8.8	PASS
LINCOLN CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
SARPY CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	9.7	PASS
SCOTTS BLUFF CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	*	INC
WASHINGTON CO	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	9.3	PASS

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Cass County and Lincoln County no longer have sufficient data to receive a grade.
- Douglas County's grade improved from an F to a D.
- Lancaster County's grade improved from a C to a B.
- Washington County's grade dropped from a B to a C.
- Cass County, Lincoln County and Scotts Bluff County no longer have sufficient data to receive a grade for their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

NEVADA

AT-RISK GROUPS

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
CARSON CITY	55,289	12,781	8,722	1,186	3,282	1,889	887	15,742	3,597
CLARK CO	1,777,539	461,334	184,964	42,812	99,451	55,078	22,345	418,770	96,255
DOUGLAS CO	45,909	8,808	8,283	817	2,937	1,728	856	14,903	3,410
WASHOE CO	396,428	97,028	45,300	9,004	22,943	12,882	5,456	100,545	23,123
WHITE PINE CO	9,150	1,854	1,388	172	558	318	144	2,587	591
TOTALS	**2,284,315**	**581,805**	**248,657**	**53,992**	**129,172**	**71,894**	**29,688**	**552,548**	**126,976**

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HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
CARSON CITY	0	0	0	0.0	A
CLARK CO	19	1	0	6.8	F
DOUGLAS CO	*	*	*	*	*
WASHOE CO	0	0	0	0.0	A
WHITE PINE CO	0	0	0	0.0	A

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
CARSON CITY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CLARK CO	3	0	0	1.0	C	8.3	PASS
DOUGLAS CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WASHOE CO	4	0	0	1.3	C	8.1	PASS
WHITE PINE CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Washoe County's grade improved from a B to an A.

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

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

NEW HAMPSHIRE

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
BELKNAP CO	61,562	12,588	9,403	1,168	4,675	2,192	1,016	18,112	4,150
CHESHIRE CO	77,393	15,686	10,804	1,456	5,891	2,692	1,195	21,640	4,961
COOS CO	33,019	6,484	6,092	602	2,525	1,218	603	10,500	2,397
GRAFTON CO	85,336	16,342	12,444	1,517	6,580	3,002	1,340	24,219	5,546
HILLSBOROUGH CO	402,789	98,975	44,141	9,185	29,108	13,133	5,533	102,172	23,535
MERRIMACK CO	148,085	32,556	18,247	3,021	11,056	5,032	2,176	39,786	9,149
ROCKINGHAM CO	296,267	70,247	32,832	6,519	21,692	9,947	4,257	78,130	18,026
SULLIVAN CO	42,979	9,309	6,622	864	3,213	1,511	707	12,553	2,875
TOTALS	**1,147,430**	**262,187**	**140,585**	**24,331**	**84,740**	**38,727**	**16,828**	**307,113**	**70,640**

American Lung Association of New Hampshire
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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BELKNAP CO	0	0	0	0.0	A	1	0	0	0.3	B	7.3	PASS
CHESHIRE CO	0	0	0	0.0	A	0	0	0	0.0	A	11.5	PASS
COOS CO	3	0	0	1.0	C	1	0	0	0.3	B	10.1	PASS
GRAFTON CO	0	0	0	0.0	A	0	0	0	0.0	A	*	INC
HILLSBOROUGH CO	9	0	0	3.0	D	3	0	0	1.0	C	*	INC
MERRIMACK CO	1	0	0	0.3	B	2	0	0	0.7	B	9.7	PASS
ROCKINGHAM CO	1	0	0	0.3	B	2	0	0	0.7	B	9	PASS
SULLIVAN CO	1	0	0	0.3	B	1	0	0	0.3	B	9.7	PASS

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Cheshire County's grade improved from a B to an A.
- Merrimack County's and Rockingham County's grade improved from a C to a B.
- Hillsborough County no longer has sufficient data to receive a grade for their annual levels.
- Merrimack County now has sufficient data to receive a grade for their annual levels.
- Strafford County no longer has PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

NEW JERSEY

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
ATLANTIC CO	271,620	64,983	36,900	6,030	15,781	8,959	3,980	72,045	16,497
BERGEN CO	904,037	203,561	132,357	18,890	53,310	31,189	14,348	256,407	58,756
CAMDEN CO	517,001	129,114	62,724	11,982	29,648	16,725	7,211	132,001	30,304
CUMBERLAND CO	154,823	37,332	19,186	3,464	9,004	4,960	2,105	38,770	8,879
ESSEX CO	786,147	204,374	90,631	18,966	44,527	24,825	10,510	193,740	44,483
GLOUCESTER CO	282,031	65,432	32,265	6,072	16,579	9,242	3,871	71,641	16,470
HUDSON CO	601,146	135,393	65,584	12,564	35,813	19,148	7,638	144,125	33,067
HUNTERDON CO	130,783	30,401	14,317	2,821	7,643	4,462	1,919	35,146	8,120
MERCER CO	367,605	84,911	44,048	7,880	21,639	12,051	5,098	94,003	21,581
MIDDLESEX CO	786,971	183,920	94,094	17,068	46,187	25,595	10,789	199,221	45,715
MONMOUTH CO	635,285	154,791	80,184	14,365	36,605	21,253	9,429	170,749	39,257
MORRIS CO	493,160	119,192	60,718	11,061	28,499	16,501	7,259	131,856	30,333
OCEAN CO	562,335	127,136	116,577	11,798	33,026	19,734	10,171	174,724	39,603
PASSAIC CO	497,093	130,318	58,916	12,094	28,063	15,686	6,705	123,148	28,255
UNION CO	531,088	133,705	66,633	12,408	30,347	17,246	7,544	137,345	31,515
WARREN CO	110,919	26,660	14,030	2,474	6,432	3,671	1,608	29,261	6,718
TOTALS	**7,632,044**	**1,831,223**	**989,164**	**169,937**	**443,105**	**251,247**	**110,185**	**2,004,183**	**459,553**

American Lung Association of New Jersey
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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ATLANTIC CO	4	0	0	1.3	C	3	1	0	1.5	C	*	INC
BERGEN CO	14	0	0	4.7	F	11	0	0	3.7	F	12.8	PASS
CAMDEN CO	27	2	0	10.0	F	12	0	0	4.0	F	13.3	PASS
CUMBERLAND CO	7	1	0	2.8	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ESSEX CO	DNC	DNC	DNC	DNC	DNC	10	0	0	3.3	F	13.2	PASS
GLOUCESTER CO	12	0	0	4.0	F	3	0	0	1.0	C	*	INC
HUDSON CO	13	0	0	4.3	F	14	0	0	4.7	F	14.1	PASS
HUNTERDON CO	23	0	0	7.7	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MERCER CO	14	0	0	4.7	F	6	0	0	2.0	C	12.7	PASS
MIDDLESEX CO	17	1	0	6.2	F	5	0	0	1.7	C	11.8	PASS
MONMOUTH CO	15	0	0	5.0	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MORRIS CO	13	0	0	4.3	F	4	0	0	1.3	C	11.2	PASS
OCEAN CO	29	1	0	10.2	F	5	0	0	1.7	C	10.8	PASS
PASSAIC CO	10	0	0	3.3	F	7	0	0	2.3	D	12.6	PASS
UNION CO	DNC	DNC	DNC	DNC	DNC	41	0	0	13.7	F	14.8	PASS
WARREN CO	DNC	DNC	DNC	DNC	DNC	6	0	0	2.0	C	12.4	PASS

Ozone
- Atlantic County's grade improved from a D to a C.
- Cumberland County's grade improved from an F to a D.
- Hudson County and Morris County grade each dropped from a D to an F.
- Essex County no longer has ozone monitors.

PM
- Essex County's grade dropped from a D to an F.
- Mercer County, Middlesex County, Morris County, Ocean County and Warren County improved their grades from a D to a C.
- Atlantic County and Gloucester County no longer have sufficient data to receive a grade for their annual levels.
- Union County's grade improved from failing to passing in their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

NEW MEXICO

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
BERNALILLO CO	615,099	153,415	73,378	14,237	38,940	19,744	8,417	154,742	35,515
CHAVES CO	62,474	16,827	9,155	1,562	3,851	1,998	922	16,463	3,759
DONA ANA CO	193,888	55,001	22,514	5,104	11,734	5,779	2,417	44,769	10,240
EDDY CO	51,815	13,879	7,072	1,288	3,197	1,677	765	13,708	3,140
GRANT CO	29,792	6,909	5,641	641	1,928	1,051	532	9,192	2,093
LEA CO	57,312	16,287	6,800	1,511	3,462	1,744	747	13,713	3,141
LUNA CO	27,205	7,611	5,274	706	1,654	885	456	7,828	1,773
SAN JUAN CO	126,473	36,823	12,415	3,417	7,565	3,749	1,515	28,440	6,539
SANDOVAL CO	113,772	29,066	12,142	2,697	7,142	3,604	1,492	27,743	6,384
SANTA FE CO	142,407	30,896	17,814	2,867	9,389	4,914	2,151	39,149	9,009
TOTALS	**1,420,237**	**366,714**	**172,205**	**34,031**	**88,863**	**45,145**	**19,414**	**355,748**	**81,594**

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BERNALILLO CO	0	0	0	0.0	A	2	1	0	1.2	C	7.1	PASS
CHAVES CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	6.5	PASS
DONA ANA CO	2	0	0	0.7	B	6	0	0	2.0	C	9.8	PASS
EDDY CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GRANT CO	*	*	*	*	*	0	0	0	0.0	A	*	INC
LEA CO	0	0	0	0.0	A	0	0	0	0.0	A	*	INC
LUNA CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SAN JUAN CO	1	0	0	0.3	B	0	0	0	0.0	A	5.9	PASS
SANDOVAL CO	0	0	0	0.0	A	2	0	0	0.7	B	7.8	PASS
SANTA FE CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	4.7	PASS

Ozone
- Bernalillo County's grade improved from a C to an A.
- Lea County now has sufficient data to receive a grade.
- San Juan County's grade dropped from an A to a B.
- Luna County now has ozone monitors, but not enough data to grade.
- Valencia County no longer has ozone monitors.

PM
- Doña Ana County's grade improved from a D to a C.
- Lea County's grade improved from a B to an A.
- Grant County no longer has sufficient data to receive a grade for their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

NEW YORK

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
ALBANY CO	297,556	61,378	40,982	5,696	19,913	10,181	4,467	81,242	18,610
BRONX CO	1,361,473	392,759	140,255	36,448	82,401	40,044	16,170	303,635	69,645
CHAUTAUQUA CO	135,357	29,540	21,336	2,741	8,863	4,674	2,176	38,723	8,847
CHEMUNG CO	88,641	19,664	13,589	1,825	5,781	3,043	1,406	25,093	5,737
DUTCHESS CO	295,146	66,805	36,282	6,200	19,294	9,811	4,199	77,087	17,701
ERIE CO	921,390	206,125	142,578	19,128	59,884	31,749	14,783	263,048	60,153
ESSEX CO	38,649	7,428	6,296	689	2,615	1,381	643	11,441	2,614
FRANKLIN CO	50,968	9,946	6,619	923	3,472	1,735	736	13,554	3,106
HAMILTON CO	5,162	870	1,076	81	354	201	104	1,780	406
HERKIMER CO	63,332	13,659	10,144	1,268	4,155	2,211	1,038	18,414	4,208
JEFFERSON CO	114,264	27,842	13,338	2,584	7,348	3,551	1,449	27,103	6,201
KINGS CO	2,508,820	655,234	302,462	60,806	156,821	78,575	33,462	615,491	141,024
MADISON CO	70,197	15,048	9,021	1,396	4,657	2,373	1,024	18,740	4,300
MONROE CO	730,807	170,643	97,097	15,836	47,174	24,367	10,768	195,306	44,779
NASSAU CO	1,325,662	313,860	195,165	29,126	84,614	45,538	21,226	377,500	86,535

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HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
ALBANY CO	5	0	0	1.7	C
BRONX CO	5	0	0	1.7	C
CHAUTAUQUA CO	13	0	0	4.3	F
CHEMUNG CO	0	0	0	0.0	A
DUTCHESS CO	4	0	0	1.3	C
ERIE CO	8	0	0	2.7	D
ESSEX CO	1	0	0	0.3	B
FRANKLIN CO	2	0	0	0.7	B
HAMILTON CO	1	0	0	0.3	B
HERKIMER CO	0	0	0	0.0	A
JEFFERSON CO	5	0	0	1.7	C
KINGS CO	DNC	DNC	DNC	DNC	DNC
MADISON CO	0	0	0	0.0	A
MONROE CO	0	0	0	0.0	A
NASSAU CO	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALBANY CO	7	0	0	2.3	D	*	INC
BRONX CO	29	0	0	9.7	F	15.1	FAIL
CHAUTAUQUA CO	2	0	0	0.7	B	9.6	PASS
CHEMUNG CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DUTCHESS CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ERIE CO	6	0	0	2.0	C	12.8	PASS
ESSEX CO	3	0	0	1.0	C	6	PASS
FRANKLIN CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HAMILTON CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HERKIMER CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JEFFERSON CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KINGS CO	9	0	0	3.0	D	14	PASS
MADISON CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MONROE CO	4	0	0	1.3	C	*	INC
NASSAU CO	6	0	0	2.0	C	11.5	PASS

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

NEW YORK

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
NEW YORK CO	1,611,581	275,724	205,328	25,587	113,487	55,315	22,711	423,705	97,028
NIAGARA CO	216,130	47,960	32,795	4,451	14,086	7,469	3,458	61,657	14,111
ONEIDA CO	233,954	51,105	36,856	4,743	15,321	8,053	3,740	66,618	15,216
ONONDAGA CO	456,777	108,206	61,955	10,042	29,337	15,173	6,753	122,159	27,988
ORANGE CO	376,392	100,273	37,054	9,305	23,466	11,609	4,682	87,944	20,249
OSWEGO CO	123,077	28,465	14,222	2,642	8,011	4,032	1,691	31,281	7,189
PUTNAM CO	100,603	24,336	10,716	2,258	6,441	3,345	1,417	26,109	6,028
QUEENS CO	2,255,175	505,422	294,132	46,903	147,763	74,892	32,404	592,438	135,747
RENSSELAER CO	155,292	34,001	20,149	3,155	10,234	5,236	2,275	41,520	9,525
RICHMOND CO	477,377	114,446	56,155	10,621	30,682	15,594	6,632	122,030	28,043
SARATOGA CO	215,473	47,845	25,723	4,440	14,175	7,197	3,052	56,223	12,922
SCHENECTADY CO	150,440	34,242	23,123	3,178	9,732	5,146	2,391	42,584	9,736
ST. LAWRENCE CO	111,284	22,955	14,733	2,130	7,470	3,743	1,603	29,418	6,735
STEUBEN CO	98,236	22,495	14,831	2,088	6,344	3,360	1,557	27,748	6,349
SUFFOLK CO	1,469,715	367,877	182,706	34,139	92,840	48,058	21,049	383,021	87,961
ULSTER CO	182,742	38,254	24,418	3,550	12,169	6,307	2,777	50,431	11,576
WAYNE CO	92,889	22,581	11,970	2,096	5,913	3,096	1,376	24,900	5,719
WESTCHESTER CO	949,355	234,633	131,346	21,774	59,985	31,591	14,350	257,634	59,050
TOTALS	**17,283,916**	**4,071,621**	**2,234,452**	**377,846**	**1,114,803**	**568,652**	**247,568**	**4,515,577**	**1,035,036**

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HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
NEW YORK CO	DNC	DNC	DNC	DNC	DNC
NIAGARA CO	4	0	0	1.3	C
ONEIDA CO	0	0	0	0.0	A
ONONDAGA CO	2	0	0	0.7	B
ORANGE CO	9	0	0	3.0	D
OSWEGO CO	2	0	0	0.7	B
PUTNAM CO	8	1	0	3.2	D
QUEENS CO	6	0	0	2.0	C
RENSSELAER CO	4	0	0	1.3	C
RICHMOND CO	16	2	0	6.3	F
SARATOGA CO	6	0	0	2.0	C
SCHENECTADY CO	0	0	0	0.0	A
ST. LAWRENCE CO	DNC	DNC	DNC	DNC	DNC
STEUBEN CO	*	*	*	*	*
SUFFOLK CO	16	0	1	6.0	F
ULSTER CO	0	0	0	0.0	A
WAYNE CO	0	0	0	0.0	A
WESTCHESTER CO	9	2	0	4.0	F

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
NEW YORK CO	15	0	0	5.0	F	15.7	FAIL
NIAGARA CO	6	0	0	2.0	C	11.8	PASS
ONEIDA CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ONONDAGA CO	2	0	0	0.7	B	9.9	PASS
ORANGE CO	4	0	0	1.3	C	10.8	PASS
OSWEGO CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PUTNAM CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
QUEENS CO	18	0	0	6.0	F	12.1	PASS
RENSSELAER CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
RICHMOND CO	8	0	0	2.7	D	13.4	PASS
SARATOGA CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SCHENECTADY CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ST. LAWRENCE CO	1	0	0	0.3	B	7.3	PASS
STEUBEN CO	6	0	0	2.0	C	9	PASS
SUFFOLK CO	4	0	0	1.3	C	*	INC
ULSTER CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WAYNE CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WESTCHESTER CO	4	0	0	1.3	C	11.6	PASS

Ozone
- Albany County and Queens County improved their grades from a D to a C.
- Chemung County, Herkimer County, Madison County, Oneida County, Schenectady County and Wayne County improved their grades from a B to an A.
- Erie County, Orange County and Putnam County each improved their grades from an F to a D.
- Essex County and Oswego County improved their grades from a D to a B.
- Franklin County now has sufficient data to receive a grade.
- Hamilton County and Onondaga County improved their grades from a C to a B.
- Jefferson County, Niagara County and Saratoga County improved their grades from an F to a C.
- Monroe County and Ulster County improved their grades from a C to an A.
- Steuben County now has ozone monitors, but not enough data to grade.

PM
- Chautauqua County and Onondaga County improved their grades from a C to a B.
- Erie County's grade improved from an F to a C.
- Essex County's grade dropped from a B to a C.
- Kings County and Richmond County improved their grades from an F to a D.
- Nassau County, Niagara County and Suffolk County improved their grades from a D to a C.
- Albany County and Suffolk County no longer have sufficient data to grade their annual levels.
- Broome County, Dutchess County, Oneida County and Schenectady County no longer have PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
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NORTH CAROLINA

AT-RISK GROUPS

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 CO	142,661	33,960	19,574	3,151	7,355	4,698	2,086	37,773	8,644
ALEXANDER CO	36,177	8,125	4,686	754	1,898	1,216	531	9,676	2,220
AVERY CO	17,674	3,144	3,000	292	985	632	293	5,222	1,190
BUNCOMBE CO	222,174	47,565	33,885	4,414	11,865	7,747	3,580	63,867	14,617
CABARRUS CO	156,395	40,594	16,695	3,767	7,801	4,895	2,017	37,576	8,639
CALDWELL CO	79,841	18,301	11,525	1,698	4,179	2,721	1,242	22,259	5,099
CAMDEN CO	9,271	2,041	1,080	189	487	307	128	2,375	546
CASWELL CO	23,546	5,026	3,400	466	1,258	822	374	6,715	1,540
CATAWBA CO	153,784	36,862	19,730	3,421	7,910	5,062	2,213	40,304	9,244
CHATHAM CO	60,052	13,312	8,268	1,235	3,161	2,016	890	16,147	3,697
CUMBERLAND CO	299,060	87,445	27,279	8,115	14,224	8,836	3,508	66,300	15,272
DAVIDSON CO	156,236	37,044	20,542	3,438	8,074	5,201	2,301	41,719	9,570
DAVIE CO	40,035	9,140	5,734	848	2,096	1,358	616	11,067	2,535
DUPLIN CO	52,790	13,836	6,728	1,284	2,632	1,672	730	13,300	3,046
DURHAM CO	246,896	60,024	23,250	5,570	12,523	7,644	2,947	56,369	12,971
EDGECOMBE CO	53,964	14,108	6,434	1,309	2,701	1,752	767	13,957	3,210
FORSYTH CO	332,355	81,056	41,402	7,522	16,990	10,844	4,700	85,867	19,703
FRANKLIN CO	55,886	13,305	5,895	1,235	2,865	1,785	723	13,559	3,118
GASTON CO	199,397	48,394	25,343	4,491	10,219	6,556	2,869	52,229	11,985

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ALAMANCE CO	DNC	DNC	DNC	DNC	DNC	5	0	0	1.7	C	14	PASS
ALEXANDER CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
AVERY CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BUNCOMBE CO	1	0	0	0.3	B	1	0	0	0.3	B	12.6	PASS
CABARRUS CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
CALDWELL CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CAMDEN CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CASWELL CO	0	0	0	0.0	A	2	0	0	0.7	B	13.3	PASS
CATAWBA CO	DNC	DNC	DNC	DNC	DNC	7	0	0	2.3	D	15.4	FAIL
CHATHAM CO	0	0	0	0.0	A	0	0	0	0.0	A	12.2	PASS
CUMBERLAND CO	8	0	0	2.7	D	2	0	0	0.7	B	13.9	PASS
DAVIDSON CO	DNC	DNC	DNC	DNC	DNC	5	0	0	1.7	C	15.2	FAIL
DAVIE CO	4	0	0	1.3	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DUPLIN CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	11.5	PASS
DURHAM CO	1	0	0	0.3	B	8	0	0	2.7	D	13.7	PASS
EDGECOMBE CO	1	0	0	0.3	B	1	0	0	0.3	B	12.4	PASS
FORSYTH CO	3	0	0	1.0	C	8	0	0	2.7	D	14.5	PASS
FRANKLIN CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GASTON CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	14.4	PASS

Notes:
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AT-RISK GROUPS

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 CO	7,995	1,726	1,412	160	428	285	139	2,438	556
GRANVILLE CO	54,473	12,454	5,933	1,156	2,829	1,769	723	13,505	3,105
GUILFORD CO	451,905	107,418	54,193	9,968	23,260	14,753	6,281	115,532	26,528
HAYWOOD CO	56,447	11,270	11,072	1,046	3,089	2,067	1,041	18,024	4,103
JACKSON CO	35,562	6,562	4,942	609	1,957	1,234	534	9,759	2,234
JOHNSTON CO	152,143	40,470	13,868	3,756	7,492	4,605	1,790	34,117	7,857
LENOIR CO	57,662	14,334	9,053	1,330	2,954	1,959	936	16,496	3,773
LINCOLN CO	71,894	17,364	8,478	1,611	3,685	2,349	1,002	18,419	4,233
MARTIN CO	24,342	5,836	3,925	542	1,263	841	405	7,122	1,629
MCDOWELL CO	43,414	9,664	6,607	897	2,292	1,490	688	12,281	2,809
MECKLENBURG CO	827,445	215,816	68,832	20,028	41,010	25,195	9,580	184,250	42,534
MITCHELL CO	15,681	3,131	3,047	291	859	577	291	5,033	1,147
MONTGOMERY CO	27,638	6,997	3,709	649	1,400	906	407	7,335	1,681
NEW HANOVER CO	182,591	38,423	24,166	3,566	9,739	6,179	2,675	48,891	11,205
ONSLOW CO	150,673	43,343	11,420	4,022	7,143	4,190	1,478	29,338	6,746
ORANGE CO	120,100	23,877	11,599	2,216	6,457	3,980	1,542	29,428	6,784
PERSON CO	37,341	8,780	5,010	815	1,938	1,260	565	10,194	2,340
PITT CO	145,619	34,825	14,380	3,232	7,423	4,517	1,752	33,433	7,682
RANDOLPH CO	140,410	34,515	17,902	3,203	7,168	4,601	2,019	36,712	8,423
ROBESON CO	129,021	36,267	13,321	3,366	6,245	3,905	1,602	29,890	6,870
ROCKINGHAM CO	93,063	21,195	14,183	1,967	4,889	3,210	1,497	26,627	6,095

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
GRAHAM CO	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GRANVILLE CO	5	0	0	1.7	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GUILFORD CO	5	0	0	1.7	C	8	0	0	2.7	D	*	INC
HAYWOOD CO	1	0	0	0.3	B	0	0	0	0.0	A	13	PASS
JACKSON CO	1	0	0	0.3	B	0	0	0	0.0	A	11.9	PASS
JOHNSTON CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LENOIR CO	1	0	0	0.3	B	1	0	0	0.3	B	11.2	PASS
LINCOLN CO	6	0	0	2.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MARTIN CO	1	0	0	0.3	B	2	0	0	0.7	B	11.1	PASS
MCDOWELL CO	DNC	DNC	DNC	DNC	DNC	6	0	0	2.0	C	14.4	PASS
MECKLENBURG CO	21	2	0	8.0	F	15	0	0	5.0	F	14.9	PASS
MITCHELL CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	12.7	PASS
MONTGOMERY CO	DNC	DNC	DNC	DNC	DNC	0	1	0	0.5	B	12.4	PASS
NEW HANOVER CO	0	0	0	0.0	A	2	0	0	0.7	B	10.2	PASS
ONSLOW CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	11.2	PASS
ORANGE CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	13.3	PASS
PERSON CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
PITT CO	1	0	0	0.3	B	2	0	0	0.7	B	11.6	PASS
RANDOLPH CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ROBESON CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	12.8	PASS
ROCKINGHAM CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
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AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
ROWAN CO	136,254	32,437	19,049	3,010	7,036	4,534	2,040	36,759	8,416
SWAIN CO	13,445	3,189	2,239	296	699	463	224	3,933	898
UNION CO	175,272	47,076	14,466	4,369	8,584	5,230	1,969	38,020	8,768
WAKE CO	786,522	200,955	60,565	18,649	39,206	23,923	8,863	172,285	39,821
WATAUGA CO	42,700	6,369	5,247	591	2,436	1,485	593	11,186	2,563
WAYNE CO	113,847	29,849	14,011	2,770	5,682	3,638	1,586	28,914	6,634
YANCEY CO	18,421	3,759	3,486	349	1,003	672	336	5,831	1,329
TOTALS	**6,450,074**	**1,591,183**	**710,565**	**147,662**	**327,387**	**205,582**	**85,073**	**1,582,031**	**363,608**

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
ROWAN CO	27	0	0	9.0	F	*	*	*	*	*	*	INC
SWAIN CO	0	0	0	0.0	A	0	0	0	0.0	A	12.5	PASS
UNION CO	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WAKE CO	7	0	0	2.3	D	9	0	0	3.0	D	13.6	PASS
WATAUGA CO	DNC	DNC	DNC	DNC	DNC	2	1	0	1.2	C	12.1	PASS
WAYNE CO	DNC	DNC	DNC	DNC	DNC	4	0	0	1.3	C	13.1	PASS
YANCEY CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Alexander County's and Chatham County's grade improved from a B to an A.
- Caldwell County's and Caswell County's grade improved from a C to an A.
- Cumberland County's and Wake County's grade improved from an F to a D.
- Davie County, Granville County and Lincoln County improved their grades from a D to a C.
- Durham County, Edgecombe County, Franklin County, Johnston County, Lenoir County, Martin County, Person County, Pitt County and Rockingham County improved their grades from a C to a B.
- Haywood County's grade dropped from an A to a B.
- Union County's grade dropped from a B to a C.
- Duplin County and Northampton County no longer have PM monitors.

PM
- Caswell County's grade improved from a C to a B.
- Chatham County, Haywood County, Jackson County, Mitchell County and Swain County improved their grades from a B to an A.
- Davidson County's and McDowell County's grade improved from a D to a C.
- Forsyth County, Guilford County and Wake County improved their grade from an F to a D.
- Montgomery County's grade dropped from an A to a B.
- Edgecombe County and Martin County now have sufficient data to receive a grade for their annual levels.
- Guilford County no longer has sufficient data to receive a grade for their annual levels.
- Mecklenburg County's grade improved from failing to passing in their annual levels.
- Nash County and Pasquotank County no longer have PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

NORTH DAKOTA

AT-RISK GROUPS

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
BILLINGS CO	829	153	125	14	45	31	15	262	60
BURKE CO	1,947	358	461	33	105	79	43	727	166
BURLEIGH CO	75,384	16,378	9,839	1,520	4,144	2,521	1,087	19,900	4,560
CASS CO	132,525	29,758	12,877	2,762	7,372	4,157	1,586	30,465	7,001
DUNN CO	3,443	774	579	72	180	124	61	1,063	244
MC KENZIE CO	5,700	1,420	873	132	288	197	95	1,670	383
MERCER CO	8,234	1,759	1,213	163	429	302	143	2,532	583
OLIVER CO	1,808	386	273	36	91	69	34	590	136
TOTALS	**229,870**	**50,986**	**26,240**	**4,732**	**12,654**	**7,480**	**3,064**	**57,210**	**13,133**

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
BILLINGS CO	0	0	0	0.0	A	0	0	0	0.0	A	4.5	PASS
BURKE CO	0	0	0	0.0	A	*	*	*	*	*	*	INC
BURLEIGH CO	*	*	*	*	*	0	0	0	0.0	A	6.5	PASS
CASS CO	0	0	0	0.0	A	0	0	0	0.0	A	7.8	PASS
DUNN CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MC KENZIE CO	0	0	0	0.0	A	0	0	0	0.0	A	4.9	PASS
MERCER CO	0	0	0	0.0	A	0	0	0	0.0	A	5.8	PASS
OLIVER CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC

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

PM
- Burke County no longer has sufficient data to grade.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

OHIO

AT-RISK GROUPS

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 CO	105,788	26,318	15,175	2,442	7,632	3,501	1,602	28,690	6,565
ASHTABULA CO	102,703	24,581	14,821	2,281	7,504	3,458	1,586	28,372	6,497
ATHENS CO	61,860	10,628	6,190	986	5,059	1,994	722	14,177	3,248
BUTLER CO	354,992	87,340	38,808	8,105	26,134	11,286	4,646	86,572	19,896
CLARK CO	141,872	33,652	21,640	3,123	10,357	4,825	2,255	40,073	9,167
CLERMONT CO	192,706	50,022	20,125	4,642	13,941	6,077	2,509	46,702	10,752
CLINTON CO	43,399	10,716	5,303	994	3,172	1,395	597	10,961	2,514
CUYAHOGA CO	1,314,241	320,716	198,458	29,762	95,075	44,424	20,803	369,393	84,525
DELAWARE CO	156,697	40,114	12,530	3,723	11,538	4,717	1,742	33,906	7,822
FRANKLIN CO	1,095,662	280,543	107,299	26,034	79,982	33,806	13,391	253,352	58,288
GEAUGA CO	95,676	23,714	13,246	2,201	6,914	3,269	1,515	27,000	6,204
GREENE CO	152,298	33,166	18,961	3,078	11,571	5,111	2,186	40,136	9,214
HAMILTON CO	822,596	206,309	110,796	19,145	59,408	27,026	12,134	218,783	50,142
JEFFERSON CO	70,125	14,124	13,077	1,311	5,294	2,573	1,281	22,267	5,081
KNOX CO	58,561	13,355	8,115	1,239	4,362	1,950	864	15,655	3,582
LAKE CO	232,892	52,333	33,860	4,857	17,345	8,068	3,714	66,347	15,212
LAWRENCE CO	63,179	14,457	9,130	1,342	4,686	2,133	967	17,368	3,975

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
ALLEN CO	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ASHTABULA CO	14	0	0	4.7	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ATHENS CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	12.2	PASS
BUTLER CO	11	1	0	4.2	F	13	0	0	4.3	F	15.5	FAIL
CLARK CO	8	0	0	2.7	D	5	0	0	1.7	C	14.4	PASS
CLERMONT CO	3	0	0	1.0	C	*	*	*	*	*	*	INC
CLINTON CO	6	0	0	2.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CUYAHOGA CO	4	0	0	1.3	C	40	0	0	13.3	F	17.2	FAIL
DELAWARE CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FRANKLIN CO	12	1	0	4.5	F	16	0	0	5.3	F	15	PASS
GEAUGA CO	8	0	0	2.7	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GREENE CO	3	0	0	1.0	C	5	0	0	1.7	C	13.2	PASS
HAMILTON CO	13	1	0	4.8	F	21	0	0	7.0	F	17.4	FAIL
JEFFERSON CO	5	0	0	1.7	C	18	0	0	6.0	F	16.3	FAIL
KNOX CO	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LAKE CO	14	1	0	5.2	F	5	0	0	1.7	C	*	INC
LAWRENCE CO	1	0	0	0.3	B	6	0	0	2.0	C	15	PASS

Notes:
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AT-RISK GROUPS

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 CO	156,287	37,953	19,272	3,522	11,474	5,130	2,226	40,650	9,335
LORAIN CO	301,993	73,244	39,138	6,797	22,118	9,967	4,396	79,785	18,303
LUCAS CO	445,281	113,325	56,405	10,517	32,118	14,385	6,306	114,713	26,308
MADISON CO	41,496	9,422	4,891	874	3,124	1,359	569	10,533	2,418
MAHONING CO	251,026	54,449	41,682	5,053	18,734	8,830	4,217	74,354	16,986
MEDINA CO	169,353	41,618	19,046	3,862	12,440	5,525	2,342	43,150	9,933
MIAMI CO	101,914	23,988	14,326	2,226	7,499	3,449	1,568	28,143	6,451
MONTGOMERY CO	542,237	130,237	78,221	12,086	39,582	18,144	8,290	148,527	33,994
PORTAGE CO	155,012	33,210	17,861	3,082	11,886	5,143	2,125	39,544	9,086
PREBLE CO	42,491	9,868	5,973	916	3,140	1,441	653	11,735	2,690
SCIOTO CO	76,441	17,837	11,630	1,655	5,617	2,566	1,181	21,106	4,820
STARK CO	380,575	88,386	58,295	8,202	27,960	13,088	6,135	108,899	24,924
SUMMIT CO	545,931	130,575	75,494	12,117	40,002	18,319	8,284	148,971	34,149
TRUMBULL CO	217,362	48,843	35,339	4,533	16,065	7,627	3,649	64,303	14,707
WARREN CO	201,871	51,561	19,146	4,785	14,769	6,230	2,448	46,459	10,697
WASHINGTON CO	61,867	13,382	10,120	1,242	4,625	2,185	1,041	18,373	4,201
WOOD CO	124,183	26,421	14,329	2,452	9,545	4,090	1,676	31,288	7,183
TOTALS	**8,880,567**	**2,146,407**	**1,168,702**	**199,187**	**650,669**	**293,090**	**129,621**	**2,350,286**	**538,869**

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
LICKING CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LORAIN CO	3	0	0	1.0	C	4	0	0	1.3	C	13.6	PASS
LUCAS CO	6	1	0	2.5	D	8	0	0	2.7	D	14.1	PASS
MADISON CO	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MAHONING CO	3	0	0	1.0	C	17	0	0	5.7	F	15	PASS
MEDINA CO	6	0	0	2.0	C	*	*	*	*	*	*	INC
MIAMI CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MONTGOMERY CO	2	0	0	0.7	B	9	0	0	3.0	D	15.2	FAIL
PORTAGE CO	10	1	0	3.8	F	5	0	0	1.7	C	13.2	PASS
PREBLE CO	1	0	0	0.3	B	5	0	0	1.7	C	13.5	PASS
SCIOTO CO	DNC	DNC	DNC	DNC	DNC	7	0	0	2.3	D	14.5	PASS
STARK CO	7	1	0	2.8	D	8	0	0	2.7	D	15.9	FAIL
SUMMIT CO	9	0	0	3.0	D	18	0	0	6.0	F	15	PASS
TRUMBULL CO	10	0	0	3.3	F	9	0	0	3.0	D	14.4	PASS
WARREN CO	12	0	0	4.0	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WASHINGTON CO	8	0	0	2.7	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WOOD CO	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Clark County, Geauga County, Lucas County, Stark County, Summit County and Washington County improved their grades from an F to a D.
- Clermont County, Cuyahoga County, Jefferson County, Lorain County, Madison County, Mahoning County and Wood County improved their grades from a D to a C.
- Clinton County and Medina County improved their grades from an F to a C.
- Delaware County, Miami County and Montgomery County improved their grades from a D to a B.
- Licking County and Preble County improved their grades from a C to a B.

PM
- Athens County's grade improved from a C to a B.
- Lake County and Lorain County improved their grades from a D to a C.
- Lucas County, Montgomery County, Stark County and Trumbull County grade improved their grades from an F to a D.
- Scioto County's grade dropped from a C to a D.
- Franklin County, Mahoning County and Summit County improved their grades from failing to passing for their annual levels.
- Greene County now has sufficient data to receive a grade for their annual levels.
- Lake County no longer has sufficient data to receive a grade for their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

OKLAHOMA

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
ADAIR CO	22,317	6,544	2,559	607	1,393	672	287	5,279	1,210
CADDO CO	30,063	7,977	4,238	740	1,946	967	441	7,910	1,809
CANADIAN CO	101,335	25,127	10,344	2,332	6,740	3,238	1,323	24,720	5,696
CARTER CO	47,503	11,979	7,321	1,112	3,127	1,581	744	13,188	3,013
CHEROKEE CO	44,910	10,931	5,491	1,014	3,001	1,426	601	11,098	2,541
CLEVELAND CO	228,594	51,152	20,981	4,747	15,714	7,282	2,786	53,452	12,320
COMANCHE CO	109,181	32,209	11,935	2,989	6,800	3,247	1,359	25,167	5,773
COTTON CO	6,491	1,595	1,006	148	431	218	103	1,817	415
CREEK CO	69,146	17,121	9,925	1,589	4,585	2,310	1,063	18,992	4,349
DEWEY CO	4,475	965	913	90	308	165	86	1,465	334
GARFIELD CO	57,068	14,411	9,103	1,337	3,754	1,909	911	16,064	3,668
JEFFERSON CO	6,385	1,511	1,233	140	428	222	113	1,948	443
JOHNSTON CO	10,436	2,493	1,592	231	700	352	164	2,918	667
KAY CO	45,889	11,802	7,597	1,095	2,997	1,549	756	13,225	3,019
LINCOLN CO	32,645	8,138	4,593	755	2,160	1,085	496	8,890	2,037

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
ADAIR CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CADDO CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	*	INC
CANADIAN CO	4	0	0	1.3	C	*	*	*	*	*	*	INC
CARTER CO	*	*	*	*	*	*	*	*	*	*	*	INC
CHEROKEE CO	2	0	0	0.7	B	1	0	0	0.3	B	11.4	PASS
CLEVELAND CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
COMANCHE CO	4	0	0	1.3	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
COTTON CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CREEK CO	6	0	0	2.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DEWEY CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GARFIELD CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
JEFFERSON CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JOHNSTON CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KAY CO	6	0	0	2.0	C	2	0	0	0.7	B	9.9	PASS
LINCOLN CO	*	*	*	*	*	1	0	0	0.3	B	*	INC

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
LOVE CO	9,162	2,166	1,504	201	616	314	151	2,655	606
MAYES CO	39,774	9,883	6,007	917	2,632	1,320	614	10,926	2,497
MC CLAIN CO	31,038	7,599	4,012	705	2,068	1,019	449	8,150	1,869
MUSKOGEE CO	71,018	17,465	10,825	1,621	4,716	2,359	1,097	19,524	4,459
OKLAHOMA CO	691,266	180,627	85,045	16,762	45,076	21,851	9,430	172,579	39,554
OTTAWA CO	33,026	8,070	5,457	749	2,195	1,109	530	9,344	2,130
PITTSBURG CO	45,002	9,776	7,673	907	3,099	1,571	752	13,256	3,023
SEMINOLE CO	24,650	6,255	3,957	580	1,618	822	392	6,920	1,579
SEQUOYAH CO	41,356	10,586	5,665	982	2,713	1,345	606	10,916	2,499
TULSA CO	577,795	152,486	69,089	14,151	37,552	18,315	7,897	144,555	33,177
TOTALS	**2,380,525**	**608,868**	**298,065**	**56,503**	**156,370**	**76,248**	**33,150**	**604,959**	**138,688**

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
LOVE CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MAYES CO	3	0	0	1.0	C	3	0	0	1.0	C	11.5	PASS
MC CLAIN CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MUSKOGEE CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	11.6	PASS
OKLAHOMA CO	13	0	0	4.3	F	0	0	0	0.0	A	9.8	PASS
OTTAWA CO	3	0	0	1.0	C	1	0	0	0.3	B	11.4	PASS
PITTSBURG CO	0	0	0	0.0	A	1	0	0	0.3	B	10.7	PASS
SEMINOLE CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
SEQUOYAH CO	*	*	*	*	*	4	0	0	1.3	C	*	INC
TULSA CO	10	2	0	4.3	F	4	0	0	1.3	C	11	PASS

Ozone
- Canadian County, Kay County and Ottawa County dropped their grades from a B to a C.
- Cleveland County's grade improved from a B to an A.
- Mayes County now has sufficient data to receive a grade.
- Oklahoma County's dropped from a C to an F.
- Lincoln County and Sequoyah County now have ozone monitors, but not enough data to grade.

PM
- Carter County and Garfield County no longer have sufficient data to grade.
- Kay County's grade improved from a C to a B.
- Oklahoma County's grade improved from a B to an A.
- Sequoyah County now has sufficient data to receive a grade.
- Caddo County no longer has sufficient data to receive a grade for their annual levels.
- Comanche County, Pawnee County and Payne County no longer have PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

OREGON

AT-RISK GROUPS

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
CLACKAMAS CO	374,230	86,281	44,175	8,007	28,313	12,665	5,484	100,214	23,085
COLUMBIA CO	49,163	11,428	5,595	1,061	3,710	1,644	701	12,879	2,967
DESCHUTES CO	149,140	32,474	19,850	3,014	11,395	5,067	2,226	40,464	9,281
DOUGLAS CO	105,117	21,924	20,245	2,035	8,029	3,827	1,930	33,395	7,609
JACKSON CO	197,071	42,964	32,365	3,987	14,960	6,928	3,301	58,256	13,314
JOSEPHINE CO	81,688	16,766	16,602	1,556	6,252	3,014	1,551	26,650	6,066
KLAMATH CO	66,438	15,684	10,210	1,455	4,939	2,279	1,073	19,011	4,351
LANE CO	337,870	69,407	47,140	6,441	26,191	11,694	5,190	93,986	21,543
LINN CO	111,489	26,547	16,584	2,464	8,258	3,751	1,730	30,890	7,065
MARION CO	311,304	82,103	36,835	7,619	22,368	9,728	4,131	76,063	17,438
MULTNOMAH CO	681,454	155,062	71,760	14,390	51,746	22,385	9,159	171,060	39,412
UMATILLA CO	72,928	19,634	8,967	1,822	5,207	2,313	1,013	18,432	4,229
UNION CO	24,345	5,401	3,743	501	1,844	847	396	7,032	1,610
WASCO CO	23,712	5,501	4,066	510	1,766	834	409	7,149	1,633
WASHINGTON CO	514,269	134,255	45,790	12,459	37,409	15,823	6,173	117,484	27,103
TOTALS	**3,100,218**	**725,431**	**383,927**	**67,320**	**232,389**	**102,799**	**44,466**	**812,965**	**186,707**

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
CLACKAMAS CO	0	1	0	0.5	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
COLUMBIA CO	0	0	0	0.0	A	*	*	*	*	*	*	INC
DESCHUTES CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
DOUGLAS CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
JACKSON CO	0	0	0	0.0	A	6	0	0	2.0	C	10.3	PASS
JOSEPHINE CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	*	INC
KLAMATH CO	DNC	DNC	DNC	DNC	DNC	20	0	0	6.7	F	11.4	PASS
LANE CO	0	0	0	0.0	A	45	2	0	16.0	F	12	PASS
LINN CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
MARION CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MULTNOMAH CO	0	0	0	0.0	A	6	0	0	2.0	C	9.5	PASS
UMATILLA CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
UNION CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	8.5	PASS
WASCO CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
WASHINGTON CO	DNC	DNC	DNC	DNC	DNC	6	0	0	2.0	C	*	INC

Ozone
- Clackamas County and Marion County dropped their grades from an A to a B.

PM
- Columbia County, Linn County and Wasco County no longer have sufficient data to receive a grade.
- Jackson County's grade improved from a D to a C.
- Josephine County's grade improved from a B to an A.
- Union County now has sufficient data to receive a grade for their annual levels.
- Harney County, Lake County and Marion County no longer have PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

PENNSYLVANIA

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
ADAMS CO	101,105	22,438	13,934	2,082	6,890	3,402	1,505	27,285	6,248
ALLEGHENY CO	1,223,411	260,084	208,070	24,136	82,980	43,618	21,048	369,779	84,488
ARMSTRONG CO	70,096	14,434	12,669	1,339	4,780	2,542	1,252	21,842	4,985
BEAVER CO	175,736	36,819	31,854	3,417	11,912	6,369	3,151	54,876	12,527
BERKS CO	401,149	93,907	56,152	8,715	26,844	13,379	6,000	108,233	24,776
BLAIR CO	126,494	27,021	21,590	2,508	8,594	4,474	2,152	37,856	8,642
BUCKS CO	623,205	145,507	82,440	13,503	41,361	21,223	9,526	171,757	39,464
CAMBRIA CO	146,967	28,909	27,396	2,683	10,160	5,371	2,653	46,237	10,542
CENTRE CO	140,953	23,577	15,625	2,188	10,620	4,628	1,742	33,654	7,699
CHESTER CO	482,112	117,666	57,656	10,919	31,779	15,881	6,872	125,619	28,887
CLEARFIELD	82,442	16,768	14,324	1,556	5,680	2,947	1,418	24,935	5,690
CUMBERLAND CO	226,117	46,055	33,969	4,274	15,696	7,893	3,588	64,400	14,736
DAUPHIN CO	254,176	59,791	35,082	5,549	16,850	8,624	3,910	70,243	16,115
DELAWARE CO	555,996	134,324	79,112	12,465	36,667	18,589	8,473	151,931	34,790
ERIE CO	279,811	65,812	39,857	6,107	18,636	9,399	4,264	76,587	17,535

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADAMS CO	1	0	0	0.3	B	23	0	0	7.7	F	13	PASS
ALLEGHENY CO	13	1	0	4.8	F	156	20	0	62.0	F	20.4	FAIL
ARMSTRONG CO	6	1	0	2.5	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BEAVER CO	7	0	0	2.3	D	14	0	0	4.7	F	16.3	FAIL
BERKS CO	6	0	0	2.0	C	12	0	0	4.0	F	15.5	FAIL
BLAIR CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BUCKS CO	16	0	0	5.3	F	7	0	0	2.3	D	13.2	PASS
CAMBRIA CO	1	0	0	0.3	B	12	0	0	4.0	F	15.3	FAIL
CENTRE CO	1	0	0	0.3	B	27	0	0	9.0	F	12.7	PASS
CHESTER CO	16	0	0	5.3	F	5	0	0	1.7	C	*	INC
CLEARFIELD	4	0	0	1.3	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CUMBERLAND CO	DNC	DNC	DNC	DNC	DNC	31	0	0	10.3	F	14.4	PASS
DAUPHIN CO	8	0	0	2.7	D	30	0	0	10.0	F	15	PASS
DELAWARE CO	9	0	0	3.0	D	11	0	0	3.7	F	15	PASS
ERIE CO	5	0	0	1.7	C	20	1	0	7.2	F	12.5	PASS

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
FRANKLIN CO	139,991	31,609	22,864	2,933	9,426	4,794	2,262	40,064	9,140
GREENE CO	40,432	8,080	5,913	750	2,822	1,414	636	11,460	2,624
INDIANA CO	88,234	16,695	13,646	1,549	6,265	3,101	1,402	25,221	5,762
LACKAWANNA CO	209,728	43,447	37,894	4,032	14,357	7,502	3,668	64,149	14,624
LANCASTER CO	494,486	124,995	70,706	11,600	32,198	16,215	7,405	132,700	30,353
LAWRENCE CO	91,795	19,732	16,875	1,831	6,190	3,293	1,636	28,450	6,487
LEHIGH CO	335,544	77,958	50,403	7,235	22,394	11,376	5,251	93,728	21,436
LUZERNE CO	313,020	62,481	57,082	5,798	21,635	11,301	5,524	96,614	22,024
LYCOMING CO	117,668	25,161	19,032	2,335	8,015	4,125	1,944	34,442	7,871
MERCER CO	118,551	25,815	20,891	2,396	7,997	4,194	2,047	35,821	8,171
MONROE CO	165,685	39,049	18,989	3,624	11,117	5,421	2,281	42,140	9,689
MONTGOMERY CO	775,688	181,875	113,823	16,878	51,424	26,451	12,219	218,027	49,940
NORTHAMPTON CO	291,306	63,136	42,213	5,859	19,885	10,000	4,522	81,320	18,619
PERRY CO	45,087	10,395	5,619	965	3,016	1,524	668	12,148	2,794
PHILADELPHIA CO	1,448,394	370,676	188,773	34,399	94,765	46,140	20,183	367,502	84,098
TIOGA CO	41,137	8,679	6,999	805	2,810	1,453	695	12,250	2,796
WASHINGTON CO	206,432	42,415	35,223	3,936	14,134	7,418	3,571	62,792	14,348
WESTMORELAND CO	366,440	73,227	66,170	6,795	25,134	13,446	6,622	115,509	26,383
YORK CO	416,322	94,921	56,154	8,809	27,996	14,080	6,270	113,393	26,009
TOTALS	**10,595,710**	**2,413,458**	**1,578,999**	**223,969**	**711,028**	**361,588**	**166,358**	**2,972,964**	**680,294**

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HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
FRANKLIN CO	0	0	0	0.0	A
GREENE CO	6	0	0	2.0	C
INDIANA CO	*	*	*	*	*
LACKAWANNA CO	2	0	0	0.7	B
LANCASTER CO	11	0	0	3.7	F
LAWRENCE CO	1	0	0	0.3	B
LEHIGH CO	12	0	0	4.0	F
LUZERNE CO	1	0	0	0.3	B
LYCOMING CO	3	0	0	1.0	C
MERCER CO	8	0	0	2.7	D
MONROE CO	*	*	*	*	*
MONTGOMERY CO	12	0	0	4.0	F
NORTHAMPTON CO	13	1	0	4.8	F
PERRY CO	1	0	0	0.3	B
PHILADELPHIA CO	19	0	0	6.3	F
TIOGA CO	0	0	0	0.0	A
WASHINGTON CO	8	0	0	2.7	D
WESTMORELAND CO	7	0	0	2.3	D
YORK CO	7	0	0	2.3	D

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
FRANKLIN CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
GREENE CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
INDIANA CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LACKAWANNA CO	10	0	0	3.3	F	11.6	PASS
LANCASTER CO	15	0	0	5.0	F	16.3	FAIL
LAWRENCE CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LEHIGH CO	*	*	*	*	*	*	INC
LUZERNE CO	*	*	*	*	*	*	INC
LYCOMING CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MERCER CO	15	0	0	5.0	F	13.1	PASS
MONROE CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MONTGOMERY CO	5	0	0	1.7	C	*	INC
NORTHAMPTON CO	25	0	0	8.3	F	13.6	PASS
PERRY CO	*	*	*	*	*	*	INC
PHILADELPHIA CO	30	0	0	10.0	F	*	INC
TIOGA CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WASHINGTON CO	32	0	0	10.7	F	14.9	PASS
WESTMORELAND CO	10	0	0	3.3	F	15.3	FAIL
YORK CO	13	0	0	4.3	F	16.3	FAIL

Ozone

- Adams County, Blair County, Cambria County, Centre County, Lackawanna County, Lawrence County, Luzerne County and Perry County improved their grades from a C to a B.
- Armstrong County, Beaver County, Delaware County, Mercer County, Washington County and York County improved their grades from an F to a D.
- Berks County, Clearfield County, Erie County, Greene County, and Lycoming County improved their grades from a D to a C.
- Franklin County and Tioga County improved their grades from a C to an A.
- Monroe Country now has ozone monitors, but not enough data to grade.

PM

- Bucks County's grade improved from an F to a D.
- Chester County's grade improved from a D to a C.
- Lehigh County, Luzerne County and Perry County no longer have sufficient data to receive a grade.
- Cumberland County, Dauphin County, Delaware County and Washington County improved their grades from failing to passing in their annual levels.
- Chester County, Lehigh County, Luzerne County, Montgomery County, Perry County and Philadelphia County no longer have sufficient data to grade their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

RHODE ISLAND

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
KENT CO	170,053	36,258	24,673	3,365	14,062	5,940	2,710	48,574	11,137
PROVIDENCE CO	635,596	147,504	85,079	13,688	51,401	20,844	9,087	165,674	37,909
WASHINGTON CO	127,561	26,469	17,123	2,456	10,663	4,430	1,958	35,513	8,154
TOTALS	**933,210**	**210,231**	**126,875**	**19,509**	**76,125**	**31,215**	**13,755**	**249,761**	**57,199**

American Lung Association of Rhode Island
260 West Exchange Street, Suite 102-B
Providence, RI 02903
(401) 421-6487
www.lungusa.org/rhodeisland

HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
KENT CO	8	0	0	2.7	D
PROVIDENCE CO	7	0	0	2.3	D
WASHINGTON CO	10	1	1	4.5	F

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
KENT CO	1	0	0	0.3	B	*	INC
PROVIDENCE CO	7	0	0	2.3	D	12	PASS
WASHINGTON CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Providence County's grade improved from an F to a D.

PM
- Providence County's grade improved from an F to a D.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

SOUTH CAROLINA

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
ABBEVILLE CO	25,935	6,105	3,855	567	1,508	880	407	7,262	1,662
AIKEN CO	151,800	36,466	21,429	3,384	8,783	5,105	2,328	41,740	9,565
ANDERSON CO	177,963	42,173	25,203	3,914	10,333	5,977	2,714	48,732	11,161
BARNWELL CO	23,265	6,108	3,023	567	1,308	756	339	6,111	1,402
BEAUFORT CO	142,045	33,908	25,686	3,147	8,164	4,825	2,372	41,414	9,416
BERKELEY CO	152,282	40,339	14,357	3,743	8,568	4,745	1,910	35,900	8,282
CHARLESTON CO	331,917	78,406	40,766	7,276	19,320	10,893	4,677	85,749	19,682
CHEROKEE CO	53,886	13,439	6,752	1,247	3,082	1,750	763	13,906	3,190
CHESTER CO	32,875	8,328	4,408	773	1,872	1,087	492	8,843	2,029
CHESTERFIELD CO	43,191	10,772	5,428	1,000	2,474	1,420	626	11,362	2,610
COLLETON CO	39,467	10,019	5,322	930	2,244	1,302	589	10,585	2,427
DARLINGTON CO	67,551	17,054	8,792	1,583	3,853	2,229	998	18,012	4,135
EDGEFIELD CO	25,261	5,436	2,777	504	1,515	842	347	6,460	1,487
FLORENCE CO	131,297	32,755	16,356	3,040	7,515	4,289	1,876	34,156	7,842

American Lung Association of South Carolina
1817 Gadsden Street
Columbia, SC 29201-2392
(803) 779-5864
www.lungusa.org/southcarolina

HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
ABBEVILLE CO	4	0	0	1.3	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
AIKEN CO	0	0	0	0.0	A	3	0	0	1.0	C	*	INC
ANDERSON CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BARNWELL CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BEAUFORT CO	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	11.7	PASS
BERKELEY CO	0	0	0	0.0	A	*	*	*	*	*	*	INC
CHARLESTON CO	2	0	0	0.7	B	10	0	0	3.3	F	12.5	PASS
CHEROKEE CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHESTER CO	4	0	0	1.3	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHESTERFIELD CO	1	0	0	0.3	B	1	0	0	0.3	B	12.8	PASS
COLLETON CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DARLINGTON CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
EDGEFIELD CO	1	0	0	0.3	B	6	0	0	2.0	C	13.4	PASS
FLORENCE CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	12.7	PASS

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
GEORGETOWN CO	60,860	13,836	10,271	1,284	3,570	2,129	1,031	18,090	4,132
GREENVILLE CO	417,166	101,478	49,951	9,417	24,082	13,614	5,840	107,103	24,605
GREENWOOD CO	68,213	16,677	9,723	1,548	3,914	2,245	1,016	18,262	4,176
HORRY CO	238,493	49,796	39,042	4,621	14,303	8,310	3,888	69,065	15,761
LEXINGTON CO	240,160	59,210	27,314	5,495	13,831	7,841	3,340	61,411	14,134
OCONEE CO	70,567	15,412	12,345	1,430	4,181	2,489	1,210	21,206	4,837
ORANGEBURG CO	90,845	22,176	12,777	2,058	5,221	3,003	1,357	24,417	5,588
PICKENS CO	114,446	24,317	14,507	2,257	6,848	3,785	1,593	29,436	6,741
RICHLAND CO	348,226	82,777	33,671	7,682	20,269	11,017	4,331	82,186	18,929
SPARTANBURG CO	271,087	65,121	35,120	6,043	15,688	8,937	3,925	71,352	16,364
UNION CO	28,306	6,543	4,586	607	1,654	985	472	8,308	1,900
WILLIAMSBURG CO	36,105	9,100	4,947	844	2,057	1,194	542	9,733	2,231
YORK CO	199,035	48,593	21,288	4,509	11,491	6,397	2,639	49,129	11,308
TOTALS	**3,582,244**	**856,344**	**459,696**	**79,469**	**207,649**	**118,048**	**51,619**	**939,930**	**215,595**

American Lung Association of South Carolina
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(803) 779-5864
www.lungusa.org/southcarolina

HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
GEORGETOWN CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	12.9	PASS
GREENVILLE CO	DNC	DNC	DNC	DNC	DNC	15	0	0	5.0	F	15.9	FAIL
GREENWOOD CO	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	13.7	PASS
HORRY CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	12.2	PASS
LEXINGTON CO	DNC	DNC	DNC	DNC	DNC	5	0	0	1.7	C	15.1	FAIL
OCONEE CO	1	0	0	0.3	B	1	0	0	0.3	B	11	PASS
ORANGEBURG CO	*	*	*	*	*	*	*	*	*	*	*	INC
PICKENS CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
RICHLAND CO	13	0	0	4.3	F	14	0	0	4.7	F	14.5	PASS
SPARTANBURG CO	9	0	0	3.0	D	12	0	0	4.0	F	14.3	PASS
UNION CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WILLIAMSBURG CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
YORK CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Anderson County's grade improved from a B to an A.
- Darlington County's grade improved from a C to B.

PM
- Aiken County now has sufficient data to receive a grade.
- Greenwood County's grade improved from a C to a B.
- Lexington County's grade dropped from passing to failing for their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

SOUTH DAKOTA

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
BROOKINGS CO	28,195	5,418	3,085	503	1,814	911	350	6,699	1,534
BROWN CO	34,645	7,836	5,833	727	2,049	1,199	575	10,124	2,310
CODINGTON CO	26,347	6,474	3,842	601	1,530	871	399	7,140	1,632
CUSTER CO	7,944	1,662	1,345	154	471	293	144	2,507	575
JACKSON CO	2,900	964	360	89	149	85	38	689	158
MEADE CO	24,425	6,530	2,685	606	1,380	777	331	6,087	1,401
MINNEHAHA CO	163,281	41,303	19,116	3,833	9,494	5,183	2,190	40,399	9,270
PENNINGTON CO	94,338	23,719	12,081	2,201	5,444	3,076	1,357	24,625	5,649
TOTALS	**382,075**	**93,906**	**48,347**	**8,714**	**22,331**	**12,395**	**5,383**	**98,270**	**22,529**

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
BROOKINGS CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	9.3	PASS
BROWN CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	8.4	PASS
CODINGTON CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	10.3	PASS
CUSTER CO	*	*	*	*	*	*	*	*	*	*	*	INC
JACKSON CO	0	0	0	0.0	A	0	0	0	0.0	A	5.3	PASS
MEADE CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
MINNEHAHA CO	0	0	0	0.0	A	0	0	0	0.0	A	10.2	PASS
PENNINGTON CO	0	0	0	0.0	A	1	0	0	0.3	B	8.8	PASS

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Pennington County's grade dropped from an A to a B.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

TENNESSEE

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
ANDERSON CO	73,579	16,150	12,076	1,499	4,943	2,591	1,238	21,824	4,989
BLOUNT CO	118,186	25,732	17,079	2,388	7,884	4,057	1,836	33,006	7,558
COFFEE CO	51,625	12,468	7,969	1,157	3,334	1,724	803	14,285	3,262
DAVIDSON CO	578,698	137,506	64,429	12,761	37,158	18,611	7,678	142,949	32,847
DYER CO	37,886	9,371	5,128	870	2,433	1,250	561	10,119	2,319
HAMBLEN CO	61,026	14,158	8,848	1,314	3,986	2,048	929	16,691	3,818
HAMILTON CO	312,905	71,014	44,635	6,590	20,713	10,703	4,871	87,384	20,028
HAYWOOD CO	19,405	5,120	2,597	475	1,219	627	283	5,090	1,166
JEFFERSON CO	49,372	10,677	7,020	991	3,274	1,670	742	13,431	3,072
KNOX CO	411,967	91,222	52,591	8,465	27,196	13,810	5,967	109,146	25,043
LAWRENCE CO	40,934	10,293	6,266	955	2,607	1,348	628	11,173	2,550
LOUDON CO	44,566	9,343	8,507	867	3,024	1,598	798	13,851	3,152
MADISON CO	95,894	24,183	11,671	2,244	6,076	3,082	1,327	24,303	5,576

American Lung Association of Tennessee
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Nashville, TN 37228
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HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
ANDERSON CO	4	1	0	1.8	C
BLOUNT CO	15	0	0	5.0	F
COFFEE CO	*	*	*	*	*
DAVIDSON CO	3	0	0	1.0	C
DYER CO	DNC	DNC	DNC	DNC	DNC
HAMBLEN CO	*	*	*	*	*
HAMILTON CO	9	1	0	3.5	F
HAYWOOD CO	*	*	*	*	*
JEFFERSON CO	4	1	0	1.8	C
KNOX CO	11	0	0	3.7	F
LAWRENCE CO	*	*	*	*	*
LOUDON CO	8	0	0	2.7	D
MADISON CO	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ANDERSON CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BLOUNT CO	4	0	0	1.3	C	14.1	PASS
COFFEE CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DAVIDSON CO	15	0	0	5.0	F	14.1	PASS
DYER CO	5	0	0	1.7	C	12.1	PASS
HAMBLEN CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HAMILTON CO	7	0	0	2.3	D	15.5	FAIL
HAYWOOD CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JEFFERSON CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KNOX CO	13	0	0	4.3	F	15.6	FAIL
LAWRENCE CO	1	0	0	0.3	B	11.5	PASS
LOUDON CO	4	0	0	1.3	C	15.3	FAIL
MADISON CO	2	0	0	0.7	B	*	INC

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
MAURY CO	78,309	19,032	9,409	1,766	5,037	2,559	1,099	20,151	4,629
MCMINN CO	52,020	11,928	7,732	1,107	3,424	1,770	813	14,542	3,327
MEIGS CO	11,698	2,679	1,486	249	768	392	171	3,116	716
MONTGOMERY CO	147,114	42,310	12,455	3,926	8,716	4,261	1,616	31,114	7,164
PUTNAM CO	68,284	15,076	9,590	1,399	4,464	2,255	986	17,961	4,102
ROANE CO	53,293	11,017	8,942	1,022	3,647	1,916	920	16,188	3,702
RUTHERFORD CO	228,829	58,422	18,147	5,422	14,112	6,834	2,493	48,778	11,246
SEVIER CO	81,382	17,926	11,602	1,664	5,416	2,788	1,259	22,652	5,190
SHELBY CO	911,438	254,156	89,872	23,586	55,688	27,974	11,462	213,952	49,295
SULLIVAN CO	153,239	31,861	26,104	2,957	10,470	5,508	2,659	46,704	10,675
SUMNER CO	149,416	36,102	16,989	3,350	9,629	4,876	2,061	38,009	8,744
WILLIAMSON CO	160,781	41,069	13,725	3,811	10,229	5,143	2,051	38,690	8,962
WILSON CO	104,035	25,409	10,788	2,358	6,678	3,364	1,386	25,816	5,950
TOTALS	**4,095,881**	**1,004,224**	**485,657**	**93,192**	**262,127**	**132,760**	**56,635**	**1,040,925**	**239,083**

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
MAURY CO	DNC	DNC	DNC	DNC	DNC	4	0	0	1.3	C	13.1	PASS
MCMINN CO	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	14.1	PASS
MEIGS CO	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MONTGOMERY CO	*	*	*	*	*	9	0	0	3.0	D	13.6	PASS
PUTNAM CO	DNC	DNC	DNC	DNC	DNC	5	0	0	1.7	C	*	INC
ROANE CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	14.5	PASS
RUTHERFORD CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SEVIER CO	9	0	0	3.0	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SHELBY CO	8	1	0	3.2	D	19	0	0	6.3	F	13.6	PASS
SULLIVAN CO	7	0	0	2.3	D	3	0	0	1.0	C	14	PASS
SUMNER CO	9	0	0	3.0	D	4	0	0	1.3	C	13.6	PASS
WILLIAMSON CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WILSON CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Davidson County's and Meigs County's grades dropped from a B to a C.
- Hamilton County's grade dropped from a D to an F.
- Jefferson County's grade improved from a D to a C.
- Loudon County now has sufficient data to receive a grade.
- Rutherford County's grade improved from a C to a B.
- Shelby County's grade improved from an F to a D.
- Sullivan County's dropped from a C to a D.
- Hamblen County now has ozone monitors, but not enough data to receive a grade.
- Humphreys County, Obion County and Putnam County no longer have ozone monitors.

PM
- Madison County's grade dropped from an A to a B.
- McMinn County's grade dropped from a B to a C.
- Putnam County's grade improved from a D to a C.
- Loudon County now has sufficient data to receive a grade for their annual levels.
- Putnam County no longer has sufficient data to receive a grade for their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

TEXAS

AT-RISK GROUPS

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 CO	1,555,592	435,311	158,619	40,397	81,513	46,627	18,852	353,795	81,259
BOWIE CO	91,455	21,651	12,047	2,009	5,138	3,005	1,315	23,941	5,484
BRAZORIA CO	287,898	78,398	25,582	7,275	15,157	8,681	3,379	64,374	14,839
BREWSTER CO	9,048	1,920	1,346	178	527	307	138	2,483	567
CAMERON CO	387,717	132,216	42,095	12,270	18,707	10,639	4,471	82,662	18,899
COLLIN CO	698,851	190,388	45,215	17,668	36,347	20,401	7,191	142,743	33,047
DALLAS CO	2,345,815	670,778	195,320	62,248	120,807	68,194	25,789	497,140	114,534
DENTON CO	584,238	156,494	31,916	14,523	30,400	16,817	5,601	113,950	26,422
ECTOR CO	127,462	37,682	13,882	3,497	6,567	3,804	1,598	29,544	6,780
EL PASO CO	736,310	232,973	75,183	21,620	36,712	21,026	8,642	161,147	36,968
ELLIS CO	139,300	37,636	12,777	3,493	7,362	4,212	1,649	31,348	7,220
GALVESTON CO	283,551	72,351	30,941	6,714	15,428	9,035	3,778	69,972	16,098
GREGG CO	117,090	30,927	15,529	2,870	6,357	3,722	1,653	29,927	6,848
HARRIS CO	3,886,207	1,124,974	297,691	104,398	198,772	113,022	42,306	818,913	189,129
HARRISON CO	63,819	15,810	8,137	1,467	3,534	2,088	917	16,676	3,826
HAYS CO	130,325	30,286	10,066	2,811	7,159	3,926	1,378	27,407	6,314
HIDALGO CO	700,634	248,770	65,322	23,086	32,812	18,253	7,200	136,483	31,231
HOOD CO	49,238	10,690	9,046	992	2,896	1,733	852	14,876	3,386
HUNT CO	83,338	20,404	10,528	1,893	4,622	2,685	1,157	21,189	4,854
JEFF DAVIS CO	2,315	495	422	46	137	84	42	725	166

American Lung Association of the Central States
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www.lungusa.org/texas

HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BEXAR CO	15	0	0	5.0	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BOWIE CO	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	12.8	PASS
BRAZORIA CO	40	5	0	15.8	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
BREWSTER CO	0	0	0	0.0	A	0	0	0	0.0	A	*	INC
CAMERON CO	1	0	0	0.3	B	0	0	0	0.0	A	*	INC
COLLIN CO	32	0	0	10.7	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DALLAS CO	39	0	0	13.0	F	3	0	0	1.0	C	12.9	PASS
DENTON CO	45	3	0	16.5	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ECTOR CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	7.6	PASS
EL PASO CO	9	0	0	3.0	D	9	0	0	3.0	D	*	INC
ELLIS CO	7	1	0	2.8	D	1	0	0	0.3	B	*	INC
GALVESTON CO	10	2	0	4.3	F	*	*	*	*	*	*	INC
GREGG CO	10	0	0	3.3	F	*	*	*	*	*	*	INC
HARRIS CO	74	20	2	36.0	F	7	0	0	2.3	D	15.4	FAIL
HARRISON CO	3	0	0	1.0	C	0	0	0	0.0	A	*	INC
HAYS CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HIDALGO CO	1	0	0	0.3	B	1	0	0	0.3	B	10.8	PASS
HOOD CO	8	0	0	2.7	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HUNT CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JEFF DAVIS CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
JEFFERSON CO	243,914	60,893	32,542	5,651	13,497	7,926	3,513	63,655	14,576
JOHNSON CO	149,016	38,607	14,899	3,583	8,023	4,621	1,857	34,934	8,039
KAUFMAN CO	93,241	24,518	8,719	2,275	4,978	2,844	1,115	21,180	4,877
KLEBERG CO	30,353	8,040	3,478	746	1,629	922	379	7,073	1,619
LUBBOCK CO	254,862	64,672	28,765	6,002	13,863	7,850	3,200	59,869	13,712
MONTGOMERY CO	398,290	105,247	36,050	9,767	21,217	12,207	4,785	90,905	20,961
NUECES CO	321,457	88,142	36,578	8,180	17,093	9,999	4,256	78,294	17,980
ORANGE CO	84,243	20,939	11,735	1,943	4,686	2,789	1,266	22,737	5,208
PARKER CO	106,266	25,259	11,320	2,344	5,902	3,435	1,409	26,290	6,051
POTTER CO	121,328	35,107	14,065	3,258	6,313	3,607	1,518	28,052	6,419
ROCKWALL CO	69,155	18,076	5,791	1,677	3,684	2,098	797	15,330	3,537
SMITH CO	194,635	49,809	27,713	4,622	10,719	6,271	2,835	50,991	11,648
TARRANT CO	1,671,295	466,165	139,685	43,260	86,968	49,475	18,858	362,344	83,559
TRAVIS CO	921,006	228,322	62,893	21,188	49,459	27,297	9,438	188,938	43,646
VICTORIA CO	86,191	23,835	11,116	2,212	4,603	2,726	1,218	21,999	5,042
WEBB CO	231,470	86,662	18,209	8,042	10,455	5,807	2,196	42,346	9,721
TOTALS	**17,256,925**	**4,894,447**	**1,525,222**	**454,205**	**894,044**	**508,132**	**196,549**	**3,754,227**	**864,466**

American Lung Association of the Central States
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HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
JEFFERSON CO	23	2	0	8.7	F
JOHNSON CO	16	0	0	5.3	F
KAUFMAN CO	2	0	0	0.7	B
KLEBERG CO	DNC	DNC	DNC	DNC	DNC
LUBBOCK CO	DNC	DNC	DNC	DNC	DNC
MONTGOMERY CO	9	2	0	4.0	F
NUECES CO	1	0	0	0.3	B
ORANGE CO	5	0	0	1.7	C
PARKER CO	14	1	0	5.2	F
POTTER CO	DNC	DNC	DNC	DNC	DNC
ROCKWALL CO	4	0	0	1.3	C
SMITH CO	4	0	0	1.3	C
TARRANT CO	54	8	0	22.0	F
TRAVIS CO	9	0	0	3.0	D
VICTORIA CO	1	0	0	0.3	B
WEBB CO	0	0	0	0.0	A

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
JEFFERSON CO	3	0	0	1.0	C	11.5	PASS
JOHNSON CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KAUFMAN CO	*	*	*	*	*	*	INC
KLEBERG CO	*	*	*	*	*	*	INC
LUBBOCK CO	*	*	*	*	*	*	INC
MONTGOMERY CO	*	*	*	*	*	*	INC
NUECES CO	0	0	0	0.0	A	10.3	PASS
ORANGE CO	3	0	0	1.0	C	11.5	PASS
PARKER CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
POTTER CO	0	0	0	0.0	A	*	INC
ROCKWALL CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SMITH CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TARRANT CO	2	0	0	0.7	B	12	PASS
TRAVIS CO	*	*	*	*	*	*	INC
VICTORIA CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WEBB CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- El Paso County and Hood County grade each dropped from a C to a D.
- Ellis County's grade improved from an F to a D.
- Gregg County's grade dropped from a D to an F.
- Hays County's grade improved from a B to an A.
- Kaufman County, Nueces County and Victoria County grade each improved from a C to a B.
- Orange County's grade improved from a D to a C.

PM
- Hidalgo County's grade improved from a C to a B.
- Bowie County and Orange County grade each dropped from a B to a C.
- Cameron County's grade improved from a C to an A.
- Dallas County's grade improved from a D to a C.
- El Paso County's grade improved from an F to a D.
- Galveston County, Gregg County, Jeff Davis County, Kaufman County, Kleberg County, Lubbock County and Montgomery County no longer have sufficient data to receive a grade.
- Harris County's grade dropped from a C to a D.
- Tarrant County's grade improved from a D to a B.
- Harris County's grade dropped from passing to failing for their annual levels.
- Harrison County no longer has sufficient data to grade their annual levels.
- Bexar County, Brazoria County, Caldwell County, Collin County, McLennan County and Webb County no longer have PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

UTAH

AT-RISK GROUPS

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 CO	47,197	15,006	5,106	1,393	2,659	1,347	563	10,434	2,390
CACHE CO	98,662	31,775	7,617	2,949	5,633	2,582	912	18,098	4,149
DAVIS CO	276,259	89,036	21,364	8,263	15,646	7,533	2,798	54,346	12,513
SALT LAKE CO	978,701	290,056	82,647	26,917	57,387	28,043	10,674	205,228	47,248
SAN JUAN CO	14,265	4,828	1,438	448	779	397	165	3,068	704
TOOELE CO	53,552	17,453	3,720	1,620	3,039	1,404	489	9,765	2,246
UTAH CO	464,760	162,860	30,491	15,113	25,529	11,464	3,855	78,138	17,935
WASHINGTON CO	126,312	35,217	21,824	3,268	7,453	3,857	1,838	32,449	7,333
WEBER CO	213,247	63,660	21,757	5,908	12,400	6,188	2,503	46,973	10,774
TOTALS	**2,272,955**	**709,891**	**195,964**	**65,878**	**130,525**	**62,815**	**23,799**	**458,500**	**105,291**

American Lung Association of Utah
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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
BOX ELDER CO	2	0	0	0.7	B	8	1	0	3.2	D	8.7	PASS
CACHE CO	0	0	0	0.0	A	57	24	0	31.0	F	12.2	PASS
DAVIS CO	9	1	0	3.5	F	11	1	0	4.2	F	10.6	PASS
SALT LAKE CO	10	0	0	3.3	F	77	6	0	28.7	F	12.1	PASS
SAN JUAN CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TOOELE CO	*	*	*	*	*	*	*	*	*	*	*	INC
UTAH CO	2	1	0	1.2	C	31	7	0	13.8	F	10.7	PASS
WASHINGTON CO	3	1	2	2.8	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WEBER CO	5	0	0	1.7	C	11	2	0	4.7	F	11.4	PASS

Ozone
- Box Elder County's grade improved from a C to a B.
- Davis County's grade dropped from a D to an F.
- Washington County now has sufficient data to receive a grade.

PM
- Davis County now has sufficient data to receive a grade for their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

VERMONT

AT-RISK GROUPS

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 CO	37,057	7,996	4,308	742	2,713	1,259	534	9,832	2,264
BENNINGTON CO	36,929	7,689	6,509	714	2,642	1,341	658	11,491	2,626
CHITTENDEN CO	150,069	32,728	15,524	3,037	11,053	4,981	2,021	37,868	8,730
RUTLAND CO	63,641	12,840	9,984	1,192	4,636	2,295	1,078	19,122	4,382
TOTALS	**287,696**	**61,253**	**36,325**	**5,684**	**21,043**	**9,876**	**4,291**	**78,313**	**18,003**

American Lung Association of Vermont
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HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
ADDISON CO	DNC	DNC	DNC	DNC	DNC
BENNINGTON CO	2	0	0	0.7	B
CHITTENDEN CO	0	0	0	0.0	A
RUTLAND CO	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
ADDISON CO	3	0	0	1.0	C	8.9	PASS
BENNINGTON CO	2	0	0	0.7	B	8.4	PASS
CHITTENDEN CO	5	0	0	1.7	C	9.2	PASS
RUTLAND CO	4	0	0	1.3	C	11.1	PASS

Ozone
- No changes occurred in ozone grades or monitors.

PM
- Addison County's grade dropped from a B to a C.
- Bennington County's grade improved from a C to a B.
- Addison County and Rutland County now have sufficient data to receive a grade for their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

VIRGINIA

AT-RISK GROUPS

County	Total Population	Under 18	65 & Over	Lung Diseases: Pediatric Asthma	Lung Diseases: Adult Asthma	Lung Diseases: Chronic Bronchitis	Lung Diseases: Emphysema	CV Disease	Diabetes
ALEXANDRIA CITY	136,974	26,555	15,043	2,464	9,392	4,573	1,823	34,406	7,907
ARLINGTON CO	199,776	35,412	19,032	3,286	14,040	6,716	2,546	49,027	11,301
BRISTOL CITY	17,496	3,449	3,852	320	1,156	639	333	5,696	1,290
CAROLINE CO	26,731	6,096	3,187	566	1,741	874	367	6,787	1,558
CHARLES CITY CO	7,221	1,361	1,108	126	483	263	121	2,167	497
CHESTERFIELD CO	296,718	74,663	22,413	6,929	18,689	9,387	3,597	68,941	15,992
FAIRFAX CO	1,010,443	253,542	92,711	23,529	63,006	32,930	13,465	251,487	58,222
FAUQUIER CO	66,170	15,796	6,892	1,466	4,214	2,171	900	16,722	3,857
FREDERICK CO	71,187	17,071	7,664	1,584	4,573	2,279	932	17,407	4,003
HAMPTON CITY	145,017	34,041	16,469	3,159	9,401	4,650	1,914	35,665	8,186
HANOVER CO	98,983	23,781	11,423	2,207	6,265	3,279	1,406	25,788	5,937
HENRICO CO	284,399	69,152	34,759	6,417	18,041	9,267	3,989	73,067	16,772
LOUDOUN CO	268,817	76,585	15,020	7,107	16,639	7,550	2,530	51,334	11,891
LYNCHBURG CITY	67,720	14,201	11,610	1,318	4,504	2,300	1,073	19,085	4,337
MADISON CO	13,613	2,839	2,159	263	889	484	227	4,030	922
NORFOLK CITY	229,112	59,207	23,331	5,494	14,601	6,859	2,669	50,863	11,656

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
ALEXANDRIA CITY	6	2	0	3.0	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ARLINGTON CO	14	0	0	4.7	F	5	0	0	1.7	C	14.2	PASS
BRISTOL CITY	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	13.9	PASS
CAROLINE CO	8	0	0	2.7	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CHARLES CITY CO	7	0	0	2.3	D	3	0	0	1.0	C	12.4	PASS
CHESTERFIELD CO	2	1	0	1.2	C	2	0	0	0.7	B	13.4	PASS
FAIRFAX CO	26	3	1	10.8	F	20	0	0	6.7	F	13.9	PASS
FAUQUIER CO	4	0	0	1.3	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FREDERICK CO	2	0	0	0.7	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HAMPTON CITY	1	0	0	0.3	B	1	0	0	0.3	B	12.3	PASS
HANOVER CO	5	0	0	1.7	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HENRICO CO	7	0	0	2.3	D	5	0	0	1.7	C	13.5	PASS
LOUDOUN CO	3	1	0	1.5	C	5	0	0	1.7	C	13.6	PASS
LYNCHBURG CITY	DNC	DNC	DNC	DNC	DNC	3	0	0	1.0	C	12.7	PASS
MADISON CO	1	0	0	0.3	B	*	*	*	*	*	*	INC
NORFOLK CITY	DNC	DNC	DNC	DNC	DNC	2	0	0	0.7	B	12.9	PASS

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
PAGE CO	24,104	5,161	3,912	479	1,570	842	396	7,024	1,604
PRINCE WILLIAM CO	357,503	103,329	21,133	9,589	21,854	10,165	3,527	70,484	16,335
RICHMOND CITY	192,913	43,592	27,751	4,045	12,597	6,353	2,810	50,956	11,630
ROANOKE CITY	91,552	20,785	15,654	1,929	5,854	3,164	1,525	26,802	6,111
ROANOKE CO	90,482	20,110	13,851	1,866	5,783	3,182	1,496	26,527	6,080
ROCKBRIDGE CO	21,337	4,393	3,689	408	1,393	768	371	6,519	1,489
SALEM CITY	24,825	4,760	4,190	442	1,667	888	418	7,403	1,690
STAFFORD CO	120,170	32,827	7,060	3,046	7,491	3,514	1,223	24,408	5,663
SUFFOLK CITY	81,071	21,018	8,501	1,950	5,086	2,515	1,023	19,152	4,401
VIRGINIA BEACH CITY	435,619	114,310	42,828	10,608	27,198	13,459	5,400	101,637	23,398
WYTHE CO	28,640	5,969	4,773	554	1,876	1,012	480	8,486	1,938
TOTALS	**4,408,593**	**1,090,005**	**440,015**	**101,152**	**280,004**	**140,082**	**56,559**	**1,061,871**	**244,669**

American Lung Association of Virginia
9221 Forest Hill Avenue
Richmond, VA 23235
(804) 267-1900
www.lungusa.org/virginia

HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
PAGE CO	0	0	0	0.0	A
PRINCE WILLIAM CO	5	0	0	1.7	C
RICHMOND CITY	DNC	DNC	DNC	DNC	DNC
ROANOKE CITY	DNC	DNC	DNC	DNC	DNC
ROANOKE CO	0	0	0	0.0	A
ROCKBRIDGE CO	0	0	0	0.0	A
SALEM CITY	DNC	DNC	DNC	DNC	DNC
STAFFORD CO	5	2	0	2.7	D
SUFFOLK CITY	4	0	0	1.3	C
VIRGINIA BEACH CITY	DNC	DNC	DNC	DNC	DNC
WYTHE CO	0	0	0	0.0	A

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
PAGE CO	2	0	0	0.7	B	12.7	PASS
PRINCE WILLIAM CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
RICHMOND CITY	*	*	*	*	*	*	INC
ROANOKE CITY	4	0	0	1.3	C	14.3	PASS
ROANOKE CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ROCKBRIDGE CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SALEM CITY	4	0	0	1.3	C	*	INC
STAFFORD CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SUFFOLK CITY	DNC	DNC	DNC	DNC	DNC	DNC	DNC
VIRGINIA BEACH CITY	6	0	0	2.0	C	12.5	PASS
WYTHE CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC

Ozone
- Charles City County and Henrico County grade each dropped from a C to a D.
- Hampton County's grade improved from a C to a B.
- Madison County's grade improved from a D to a B.
- Page County's grade improved from a C to an A.
- Roanoke County and Wythe County improved their grades from a B to an A.
- Suffolk County's grade improved from a D to a C.

PM
- Arlington County's and Loudon County's grade improved from a D to a C.
- Chesterfield County and Page County grade each improved from a C to a B.
- Lynchburg City now has sufficient data to receive a grade for their annual levels.
- Salem City no longer has sufficient data to receive a grade for their annual levels.
- Madison County now has PM monitors, but not enough data to receive a grade.
- Chesapeake City and Newport News City no longer have PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

WASHINGTON

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
BENTON CO	159,463	42,333	17,309	3,929	10,346	5,027	2,113	39,050	8,985
CHELAN CO	71,034	17,842	10,683	1,656	4,679	2,360	1,101	19,573	4,474
CLALLAM CO	70,400	13,384	15,531	1,242	4,986	2,645	1,387	23,688	5,378
CLARK CO	412,938	107,476	41,845	9,974	27,000	12,900	5,249	98,248	22,619
GRANT CO	82,612	25,095	9,299	2,329	5,072	2,425	1,025	18,908	4,331
GRAYS HARBOR CO	71,587	16,011	10,652	1,486	4,892	2,451	1,124	20,108	4,601
KING CO	1,826,732	399,499	193,994	37,074	126,193	60,893	24,976	466,008	107,410
KLICKITAT CO	20,335	4,769	3,114	443	1,370	706	334	5,913	1,355
LEWIS CO	73,585	17,248	11,575	1,601	4,953	2,505	1,178	20,887	4,772
MASON CO	55,951	11,663	9,383	1,082	3,891	1,967	932	16,484	3,762
OKANOGAN CO	40,040	9,715	6,263	902	2,667	1,375	656	11,573	2,649
PIERCE CO	766,878	193,328	79,374	17,941	50,688	24,199	9,860	184,468	42,452
SKAGIT CO	115,700	27,370	16,782	2,540	7,775	3,862	1,756	31,513	7,207
SNOHOMISH CO	669,887	168,931	62,608	15,677	44,330	21,170	8,449	159,348	36,777
SPOKANE CO	446,706	105,570	55,990	9,797	30,088	14,675	6,338	115,948	26,601
THURSTON CO	234,670	52,196	28,155	4,844	16,110	7,867	3,353	61,646	14,172
WHATCOM CO	185,953	40,649	23,093	3,772	12,818	6,159	2,605	48,039	11,016
YAKIMA CO	233,105	71,639	26,100	6,648	14,242	6,881	2,937	53,968	12,375
TOTALS	**5,537,576**	**1,324,718**	**621,750**	**122,934**	**372,100**	**180,067**	**75,372**	**1,395,370**	**320,936**

American Lung Association of Washington
2625 Third Avenue
Seattle, WA 98121-1213
(206) 441-5100
www.lungusa.org/washington

HIGH OZONE DAYS 2004-2006

County	Orange	Red	Purple	Wgt. Avg	Grade
BENTON CO	DNC	DNC	DNC	DNC	DNC
CHELAN CO	DNC	DNC	DNC	DNC	DNC
CLALLAM CO	0	0	0	0.0	A
CLARK CO	0	0	0	0.0	A
GRANT CO	DNC	DNC	DNC	DNC	DNC
GRAYS HARBOR CO	DNC	DNC	DNC	DNC	DNC
KING CO	3	2	0	2.0	C
KLICKITAT CO	0	0	0	0.0	A
LEWIS CO	*	*	*	*	*
MASON CO	*	*	*	*	*
OKANOGAN CO	DNC	DNC	DNC	DNC	DNC
PIERCE CO	2	1	0	1.2	C
SKAGIT CO	0	0	0	0.0	A
SNOHOMISH CO	DNC	DNC	DNC	DNC	DNC
SPOKANE CO	0	0	0	0.0	A
THURSTON CO	0	0	0	0.0	A
WHATCOM CO	0	0	0	0.0	A
YAKIMA CO	DNC	DNC	DNC	DNC	DNC

PARTICLE POLLUTION DAYS 2004-2006

	24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BENTON CO	*	*	*	*	*	*	INC
CHELAN CO	*	*	*	*	*	*	INC
CLALLAM CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
CLARK CO	*	*	*	*	*	*	INC
GRANT CO	*	*	*	*	*	*	INC
GRAYS HARBOR CO	*	*	*	*	*	*	INC
KING CO	4	1	0	1.8	C	9.3	PASS
KLICKITAT CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LEWIS CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MASON CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
OKANOGAN CO	*	*	*	*	*	*	INC
PIERCE CO	13	1	0	4.8	F	10.6	PASS
SKAGIT CO	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SNOHOMISH CO	7	0	0	2.3	D	9.9	PASS
SPOKANE CO	4	0	0	1.3	C	9.9	PASS
THURSTON CO	*	*	*	*	*	*	INC
WHATCOM CO	*	*	*	*	*	*	INC
YAKIMA CO	*	*	*	*	*	*	INC

Ozone
- Lewis County no longer has sufficient data to receive a grade.
- Pierce County's grade dropped from a B to a C.

PM
- Benton County and Clark County no longer have sufficient data to receive a grade.
- Clark County no longer has sufficient data to receive a grade for their annual levels.
- Kitsap County, Lewis County and Skamania County no longer have PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

WEST VIRGINIA

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
BERKELEY CO	97,534	23,911	10,229	2,219	6,209	3,102	1,263	23,636	5,438
BROOKE CO	24,132	4,668	4,563	433	1,671	897	448	7,781	1,776
CABELL CO	93,904	19,357	15,251	1,796	6,347	3,279	1,528	27,186	6,206
GREENBRIER CO	34,850	7,249	6,189	673	2,366	1,263	620	10,829	2,473
HANCOCK CO	30,911	6,376	5,746	592	2,109	1,138	571	9,894	2,259
HARRISON CO	68,745	15,320	10,950	1,422	4,563	2,399	1,135	20,081	4,593
KANAWHA CO	192,419	41,265	31,648	3,829	12,938	6,878	3,302	58,111	13,298
MARION CO	56,706	11,388	9,540	1,057	3,867	2,020	958	16,932	3,866
MARSHALL CO	33,896	7,219	5,566	670	2,285	1,220	587	10,325	2,364
MERCER CO	61,278	12,991	10,687	1,206	4,133	2,188	1,063	18,636	4,255
MONONGALIA CO	84,752	15,149	8,862	1,406	5,825	2,789	1,057	20,362	4,673
OHIO CO	44,662	9,086	8,418	843	3,054	1,636	818	14,191	3,237
RALEIGH CO	79,302	16,241	12,446	1,507	5,379	2,816	1,313	23,354	5,345
SUMMERS CO	13,531	2,271	2,501	211	963	506	245	4,303	982
WOOD CO	86,597	19,164	13,910	1,778	5,766	3,052	1,454	25,654	5,871
TOTALS	**1,003,219**	**211,655**	**156,506**	**19,642**	**67,474**	**35,184**	**16,362**	**291,272**	**66,634**

American Lung Association of West Virginia
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Charleston, WV 25339-3980
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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
BERKELEY CO	3	0	0	1.0	C	9	0	0	3.0	D	15.8	FAIL
BROOKE CO	DNC	DNC	DNC	DNC	DNC	24	0	0	8.0	F	16.4	FAIL
CABELL CO	3	0	0	1.0	C	8	0	0	2.7	D	16.1	FAIL
GREENBRIER CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
HANCOCK CO	1	0	0	0.3	B	12	0	0	4.0	F	15.4	FAIL
HARRISON CO	DNC	DNC	DNC	DNC	DNC	7	0	0	2.3	D	13.9	PASS
KANAWHA CO	3	0	0	1.0	C	18	0	0	6.0	F	16.4	FAIL
MARION CO	DNC	DNC	DNC	DNC	DNC	5	0	0	1.7	C	14.9	PASS
MARSHALL CO	DNC	DNC	DNC	DNC	DNC	4	0	0	1.3	C	15	PASS
MERCER CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
MONONGALIA CO	1	0	0	0.3	B	6	0	0	2.0	C	14.1	PASS
OHIO CO	7	0	0	2.3	D	5	0	0	1.7	C	*	INC
RALEIGH CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	12.8	PASS
SUMMERS CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
WOOD CO	4	0	0	1.3	C	8	0	0	2.7	D	15.3	FAIL

Ozone
- Greenbrier County's grade improved from a B to an A.
- Monongalia County's grade improved from a C to a B.

PM
- Berkeley County's grade improved from an F to a D.
- Harrison County and Wood County grade each dropped from a C to a D.
- Mercer County and Summers County no longer has sufficient data to receive a grade.
- Monongalia County's grade improved from a D to a C.
- Marshall County's grade improved from failing to passing for their annual levels.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

WISCONSIN

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
ASHLAND CO	16,511	3,900	2,546	362	1,100	555	258	4,594	1,049
BROWN CO	240,213	59,360	26,521	5,509	16,020	7,674	3,186	59,169	13,602
COLUMBIA CO	55,440	12,426	7,900	1,153	3,747	1,890	855	15,372	3,521
DANE CO	463,826	100,981	44,204	9,371	32,559	14,975	5,801	110,738	25,518
DODGE CO	88,983	19,224	12,104	1,784	6,137	3,010	1,322	24,031	5,505
DOOR CO	28,200	5,308	5,724	493	1,930	1,072	550	9,463	2,158
FLORENCE CO	4,941	910	940	84	341	187	94	1,624	371
FOND DU LAC CO	99,243	22,388	14,051	2,078	6,709	3,365	1,516	27,298	6,252
FOREST CO	9,899	2,194	2,058	204	662	351	182	3,116	707
GRANT CO	49,362	10,468	7,883	971	3,410	1,697	784	13,996	3,193
GREEN CO	35,688	8,378	5,120	777	2,368	1,210	554	9,914	2,271
JEFFERSON CO	80,025	18,213	9,980	1,690	5,456	2,647	1,134	20,806	4,773
KENOSHA CO	162,001	41,749	17,827	3,874	10,645	5,110	2,130	39,492	9,077
KEWAUNEE CO	20,832	4,685	3,124	435	1,406	712	327	5,846	1,337
LA CROSSE CO	109,404	23,926	13,997	2,220	7,591	3,623	1,544	28,389	6,504
MANITOWOC CO	81,911	18,324	12,750	1,700	5,484	2,849	1,338	23,730	5,430
MARATHON CO	130,223	31,231	17,267	2,898	8,632	4,336	1,930	34,912	8,008
MILWAUKEE CO	915,097	244,241	108,620	22,666	59,199	28,735	12,323	226,054	51,861
ONEIDA CO	36,779	7,054	7,381	655	2,518	1,381	705	12,149	2,769
OUTAGAMIE CO	172,734	43,463	19,699	4,033	11,429	5,509	2,317	42,819	9,836
OZAUKEE CO	86,321	19,848	11,981	1,842	5,688	3,005	1,381	24,683	5,673

American Lung Association of Wisconsin
13100 West Lisbon Road, Suite 700
Brookfield, WI 53005-2508
(262) 703-4200
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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
ASHLAND CO	0	0	0	0.0	A	0	0	0	0.0	A	6	PASS
BROWN CO	1	0	0	0.3	B	10	0	0	3.3	F	11.4	PASS
COLUMBIA CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
DANE CO	0	0	0	0.0	A	8	0	0	2.7	D	12	PASS
DODGE CO	1	0	0	0.3	B	13	0	0	4.3	F	11	PASS
DOOR CO	12	2	0	5.0	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FLORENCE CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FOND DU LAC CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
FOREST CO	0	0	0	0.0	A	0	0	0	0.0	A	*	INC
GRANT CO	DNC	DNC	DNC	DNC	DNC	7	0	0	2.3	D	11.6	PASS
GREEN CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
JEFFERSON CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
KENOSHA CO	18	0	0	6.0	F	5	0	0	1.7	C	11.8	PASS
KEWAUNEE CO	9	0	0	3.0	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
LA CROSSE CO	DNC	DNC	DNC	DNC	DNC	*	*	*	*	*	*	INC
MANITOWOC CO	9	2	0	4.0	F	4	0	0	1.3	C	10	PASS
MARATHON CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
MILWAUKEE CO	16	1	0	5.8	F	16	0	0	5.3	F	13.5	PASS
ONEIDA CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
OUTAGAMIE CO	0	0	0	0.0	A	8	0	0	2.7	D	10.9	PASS
OZAUKEE CO	15	2	0	6.0	F	5	0	0	1.7	C	11	PASS

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

AT-RISK GROUPS

				Lung Diseases					
County	Total Population	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	Chronic Bronchitis	Emphysema	CV Disease	Diabetes
RACINE CO	196,096	49,163	23,670	4,562	12,860	6,380	2,765	50,513	11,606
ROCK CO	159,153	39,224	20,299	3,640	10,515	5,200	2,278	41,455	9,509
SAUK CO	58,261	13,668	8,527	1,268	3,882	1,964	900	16,103	3,685
SHEBOYGAN CO	114,756	26,756	15,808	2,483	7,672	3,860	1,733	31,242	7,161
ST CROIX CO	80,015	19,925	7,333	1,849	5,362	2,505	981	18,645	4,300
TAYLOR CO	19,605	4,596	3,070	427	1,298	670	316	5,593	1,279
VERNON CO	29,188	7,379	4,723	685	1,872	987	477	8,372	1,913
VILAS CO	22,379	4,044	5,489	375	1,546	866	472	7,965	1,805
WALWORTH CO	101,007	22,650	12,932	2,102	6,928	3,347	1,439	26,372	6,045
WASHINGTON CO	127,578	30,111	15,339	2,794	8,532	4,228	1,820	33,341	7,665
WAUKESHA CO	380,985	89,568	49,884	8,312	25,094	13,018	5,857	105,508	24,261
WAUPACA CO	52,687	11,942	8,614	1,108	3,520	1,825	869	15,338	3,503
TOTALS	**4,229,343**	**1,017,297**	**527,365**	**94,405**	**282,111**	**138,745**	**60,136**	**1,098,642**	**252,145**

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HIGH OZONE DAYS 2004-2006 / PARTICLE POLLUTION DAYS 2004-2006

	HIGH OZONE DAYS 2004-2006					PARTICLE POLLUTION DAYS 2004-2006						
						24-Hour					Annual	
County	Orange	Red	Purple	Wgt. Avg	Grade	Orange	Red	Purple	Wgt. Avg	Grade	Design Value	Pass/ Fail
RACINE CO	9	0	0	3.0	D	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ROCK CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
SAUK CO	0	0	0	0.0	A	4	0	0	1.3	C	9.9	PASS
SHEBOYGAN CO	12	3	0	5.5	F	DNC	DNC	DNC	DNC	DNC	DNC	DNC
ST CROIX CO	1	0	0	0.3	B	2	0	0	0.7	B	*	INC
TAYLOR CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	8	PASS
VERNON CO	1	0	0	0.3	B	DNC	DNC	DNC	DNC	DNC	DNC	DNC
VILAS CO	0	0	0	0.0	A	0	0	0	0.0	A	6.6	PASS
WALWORTH CO	3	0	0	1.0	C	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WASHINGTON CO	0	0	0	0.0	A	DNC	DNC	DNC	DNC	DNC	DNC	DNC
WAUKESHA CO	1	0	0	0.3	B	13	0	0	4.3	F	13.9	PASS
WAUPACA CO	DNC	DNC	DNC	DNC	DNC	1	0	0	0.3	B	*	INC

Ozone
- Ashland County and Forest County now have sufficient data to receive a grade.
- Brown County's grade improved from a C to a B.
- Dane County, Outagamie County and Washington County grade each improved from a B to an A.
- Kewaunee County's grade improved from an F to a D.
- Winnebago County no longer has ozone monitors.

PM
- Brown County's grade dropped from a D to an F.
- Forest County and Waupaca County now have sufficient data to receive a grade.
- Ozaukee County, Sauk County and Taylor County now have sufficient data to receive a grade for their annual levels.
- Door County, Douglas County, Jefferson County, Rock County, Winnebago County and Wood County no longer have PM monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

WYOMING

AT-RISK GROUPS

				Lung Diseases					
County	**Total Population**	**Under 18**	**65 & Over**	**Pediatric Asthma**	**Adult Asthma**	**Chronic Bronchitis**	**Emphysema**	**CV Disease**	**Diabetes**
CAMPBELL CO	38,934	10,381	2,207	963	2,436	1,186	426	8,387	1,953
CONVERSE CO	12,866	3,013	1,577	280	849	438	193	3,502	807
FREMONT CO	37,163	9,243	5,276	858	2,423	1,246	574	10,249	2,349
LARAMIE CO	85,384	21,149	10,265	1,963	5,568	2,765	1,187	21,762	4,997
SHERIDAN CO	27,673	6,012	4,284	558	1,879	982	463	8,201	1,880
SUBLETTE CO	7,359	1,648	813	153	491	251	106	1,959	452
SWEETWATER CO	38,763	9,965	3,215	925	2,467	1,232	486	9,210	2,134
TETON CO	19,288	3,792	1,592	352	1,328	651	249	4,774	1,106
TOTALS	**267,430**	**65,203**	**29,229**	**6,051**	**17,441**	**8,749**	**3,684**	**68,045**	**15,677**

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HIGH OZONE DAYS 2004-2006

PARTICLE POLLUTION DAYS 2004-2006

						24-Hour					Annual	
County	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Orange**	**Red**	**Purple**	**Wgt. Avg**	**Grade**	**Design Value**	**Pass/ Fail**
CAMPBELL CO	0	0	0	0.0	A	0	0	0	0.0	A	5.2	PASS
CONVERSE CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	3.5	PASS
FREMONT CO	DNC	DNC	DNC	DNC	DNC	5	0	0	1.7	C	8.4	PASS
LARAMIE CO	DNC	DNC	DNC	DNC	DNC	0	0	0	0.0	A	4.5	PASS
SHERIDAN CO	DNC	DNC	DNC	DNC	DNC	6	0	0	2.0	C	9.7	PASS
SUBLETTE CO	*	*	*	*	*	*	*	*	*	*	*	INC
SWEETWATER CO	*	*	*	*	*	DNC	DNC	DNC	DNC	DNC	DNC	DNC
TETON CO	0	0	0	0.0	A	1	0	0	0.3	B	*	INC

Ozone
- Campbell County's grade improved from a B to an A.
- Sweetwater County now has ozone monitors but not enough data to grade.

PM
- No changes occurred in PM grades or monitors.

Notes:
(1) The weighted average was derived by adding the three years of individual level data (2004-2006), 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. (2) Asterisk (*) indicates incomplete monitoring data for all three years. Therefore, those counties are excluded from the grade analysis or received an Incomplete. (3) DNC indicates that data on that particular pollutant is not collected in that county. (4) Grades are as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
(2) 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 the air quality in a county meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, October 31, 2007.

Appendix: 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 2004-2006 for each monitoring site.

Design values for the annual $PM_{2.5}$ concentrations by county were collected from data previously summarized by the U.S. Environmental Protection Agency (EPA) and were used as received from the EPA on October 31, 2007 in personal correspondence from Mr. Mark Schmidt, EPA.

Ozone Data Analysis

The 2004, 2005, and 2006 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 the 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 2004, 2005, and 2006, 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 the EPA based on the EPA Air Quality Index. The Air Quality Index then in place used the 1997 National Ambient Air Quality Standard set at 0.084 ppm. Those ranges are:

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 AQS $PM_{2.5}$ concentration for each county in 2004, 2005, and 2006 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, adjusted by the American Lung Association as discussed below:

from 0.0 μg/m^3 to 15.4 μg/m^3	Good (Green)
from 15.5 μg/m^3 to 35.0 μg/m^3	Moderate (Yellow)
from 35.1 μg/m^3 to 65.4 μg/m^3	Unhealthy for Sensitive Groups (Orange)
from 65.5 μg/m^3 to 150.4 μg/m^3	Unhealthy (Red)
from 150.5 μg/m^3 to 250.4 μg/m^3	Very Unhealthy (Purple)
greater than or equal to 250.5 μg/m^3	Hazardous (Maroon)

On September 21, 2006, the EPA announced a revised 24-hour National Ambient Air Quality standard for $PM_{2.5}$, changing the standard from 65 μg/m^3 to 35 μg/m^3. The EPA has not yet announced changes to the Air Quality Index based on the new standard. However, the Lung Association adjusted the level of the category "Unhealthy for Sensitive Groups" to include the new standard, making that category range from 35.1 μg/m^3 to 65.4 μg/m^3.

No data capture criteria were used to eliminate monitoring sites. All data were used in the analysis because it was the goal to identify the number of days that the maximum in each county of the daily AIRS $PM_{2.5}$ concentration occurred within the defined ranges. Only 24-h averaged PM data were used. Included in the analysis are data collected using only FRM and FEM methods, which reported 24-h averaged data. As instructed by the Lung Association, A.S.L. & Associates included the exceptional and natural events that were identified in the database and identified for the Lung Association the dates and monitoring sites that experienced such events.

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

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 a factor of 1.5, purple days a factor of 2 and maroon days a factor of 2.5. By multiplying the total number of days within each category

by their assigned factor, a total was determined. Because the monitoring data were 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 defined Metropolitan Statistical Area. In 2006, the White House Office of Management and Budget published revised definitions for the nation's Metropolitan Statistical Areas. Therefore, comparisons between MSAs of the *State of the Air 2008* report and earlier *State of the Air* reports 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 or maroon category. The number of days for an "F" grade was set to roughly correlate with the number of days that would place a county in nonattainment for the ozone standard. For short-term particle pollution, the number of days required for an F would roughly approximate a 99th percentile form of the $PM_{2.5}$, a form the American Lung Association supports.

Grading System

Grade	Weighted Average	Approximate Number of Allowable Orange/Red/Purple/Maroon 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 also had 2 red days, which signify days with more serious air pollution, would receive an F. That second county would have a weighted average of 3.7.

Note that this system differs significantly from the methodology the EPA uses to determine violations of both the ozone standard and the 24-hour $PM_{2.5}$. the 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 con-

trast, 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 EPA's 1997 ozone standard or the 1-hour ozone standard set in 1979. The EPA adopted a new ozone standard on March 12, 2008. This grading system has not been adjusted to reflect the new standard.

Year-round particle pollution (Annual $PM_{2.5}$)

Since no comparable Air Quality Index exists for year-round particle pollution (annual $PM_{2.5}$), the grading was based on the EPA's determination of violations of the national ambient air quality standard for annual $PM_{2.5}$ of 15 $\mu g/m^3$, as reported October 31, 2007 in personal correspondence from Mark Schmidt, EPA. Counties that the EPA listed as being in attainment of the standard were given grades of "Pass." Counties that the EPA listed as being in nonattainment were given grades of "Fail." Where insufficient data existed for the 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 Metropolitan Statistical Area as of 2006 as defined by the White House Office of Management and Budget. 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 the EPA to determine whether or not the air quality in a county meets the standard.

The Lung Association received critical assistance from members of the National Association of Clean Air Administrators, formerly known as the State and Territorial Air Pollution Control Administrators and the Association of Local Air Pollution Control Administrators. With their assistance, all state and local agencies were provided the opportunity to review and comment on the data in draft tabular form. The Lung Association reviewed all discrepancies with the agencies and, if needed, with Dr. Lefohn at A.S.L. and Associates. Questions about the annual PM design values were referred to Mr. Schmidt of the EPA, who reviewed and had final decision on those determinations. The American Lung Association wishes to express its continued appreciation to the state and local air directors and to Mr. Schmidt of the EPA for their willingness to assist in ensuring that the characterized data used in this report are correct.

Calculations of Populations-at-Risk

Presently county-specific measurements of the number of persons with chronic lung disease and other chronic conditions are not generally available. (The primary exception to this is asthma, as state-specific estimates for adult asthma are available through one national survey discussed below.) In order to assess the magnitude of lung disease and other chronic conditions at the state and county levels, we have employed a synthetic estimation technique originally developed by the U.S. Bureau of the Census. This method uses age-specific national estimates of self-reported lung disease and other conditions to project the prevalence of disease by county.

Population Estimates

The U.S. Census Bureau estimated data on the total population of each county in the United States for 2006. The Census Bureau also estimated the age-specific breakdown of the population by county.

Prevalence Estimates

Chronic Bronchitis, Emphysema, Pediatric Asthma and Cardiovascular Disease. In 2006, the National Health Interview Survey (NHIS) estimated the nationwide annual prevalence of diagnosed chronic bronchitis at 9.5 million; the nationwide lifetime prevalence of emphysema was estimated at 4.1 million. The NHIS estimates the prevalence of diagnosed pediatric asthma to be over 6.8 million under age 18. The NHIS estimates the prevalence of cardiovascular disease (CV) at 74.6 million among adults age 18 years and over, which includes coronary heart disease, hypertension, stroke, angina pectoris and heart attack.

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 *State of the Air* reports for 2001 through 2008. Furthermore, estimates for chronic bronchitis and emphysema cannot be summed since they represent different types of prevalence estimates.

Pediatric asthma prevalence estimates from this year's report can only be compared to those in the *State of the Air* reports since 2004 and not the *State of the Air* reports from 2000 through 2003 due to a change to the National Health Interview Survey.

Local area prevalence of chronic bronchitis, emphysema, pediatric asthma and CV disease are estimated by applying age-specific national prevalence rates from the 2006 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 CV disease are calculated for those 18 to 44, 45 to 64 and 65+. The prevalence estimate for pediatric asthma is calculated for those under age 18.

Adult Asthma. In 2006, the Behavioral Risk Factor Surveillance System (BRFSS) survey indicated that approximately 8.5% of adults residing in the United States reported currently having asthma. The information on adult asthma obtained from the Behavioral Risk Factor Surveillance System survey cannot be compared with pediatric asthma estimates that are derived from the National Health Interview Survey.

The prevalence estimate for adult asthma is calculated for those 18 to 44, 45 to 64 and 65+. Local area prevalence of adult asthma is estimated by applying age-specific state prevalence rates from the 2006 BRFSS to age-specific county-level resident populations obtained from the U.S. Bureaus of the Census web site.

Diabetes Estimates. In 2006, the National Health Interview Survey estimated the nationwide lifetime prevalence of diabetes at 17.1 million. Local area prevalence of diabetes is estimated by applying age-specific national prevalence rates from the 2006 NHIS to age-specific county-level resident populations obtained from the U.S. Bureaus of the Census web site. Prevalence estimates for diabetes are calculated for those 18 to 44, 45 to 64 and 65+.

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 United States with these diseases. The results are also subject to reporting, non-response and processing errors. These types of errors are kept to a minimum by methods built into the survey.

Additionally, a major limitation of both surveys is that the information collected represents self-reports of medically diagnosed conditions, which may underestimate disease prevalence since not all individuals with these conditions have been properly diagnosed. However, the NHIS is the best available source that depicts the magnitude of chronic disease on the national level and the BRFSS is the best available source for state-specific adult asthma information. The conditions covered in the survey may vary considerably in the accuracy and completeness with which they are reported.

Local estimates of chronic diseases are scaled in direct proportion to the base population of the county and its age distribution. No adjustments are made for other factors that may affect local prevalence (e.g. local prevalence of cigarette smokers or occupational exposures) since the health surveys that obtain such data are rarely conducted on the county level. Because the estimates do not account for geographic differences in the prevalence of chronic and acute diseases, the sum of the estimates for each of the counties in the United States may not exactly reflect the national estimate derived by the NHIS or state estimates derived by the BRFSS.

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Beginning our second century, the American Lung Association works to prevent lung disease and promote lung health. Asthma is the leading serious chronic childhood illness. Lung diseases and breathing problems are the primary causes of infant deaths in the United States today. Smoking remains the nation's number one preventable cause of chronic illness. Lung disease death rates continue to increase while other major causes of death have declined.

The American Lung Association has long funded vital research to discover the causes and seek improved treatments for those suffering with lung disease. We are the foremost defender of the Clean Air Act and laws that protect citizens from secondhand smoke. The Lung Association teaches children the dangers of tobacco use and helps teenage and adult smokers overcome addiction. We help children and adults living with lung disease to improve their quality of life. With your generous support, the American Lung Association is "Improving life, one breath at a time."

For more information about the American Lung Association
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