

## State Table Notes

A full explanation of the sources of data and methodology is in **Methodology**.

### Notes for all state data tables

1. **Total Population** is based on 2016 U.S. Census and represents the at-risk populations in counties with ozone or PM<sub>2.5</sub> 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<sub>2.5</sub>. Do not use them as population denominators for disease estimates—that will lead to incorrect estimates.
3. **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2016 based on the state rates when available or national rates when not (Behavioral Risk Factor Surveillance System, or BRFSS), applied to county population estimates (U.S. Census).
4. **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2016 based on state rates (BRFSS) applied to county population estimates (U.S. Census).
5. **COPD** estimates are for adults 18 and over who had ever been diagnosed with chronic obstructive pulmonary disease, which includes chronic bronchitis and emphysema, based on state rates (BRFSS) applied to county population estimates (U.S. Census).
6. **Lung cancer** estimates are for all ages and represent the estimated number of people diagnosed with lung cancer in 2014 based on state rates (StateCancerProfiles.gov) applied to county population estimates (U.S. Census).
7. **Cardiovascular disease** estimates are for adults 18 and over who have been diagnosed within their lifetime, based on state rates (BRFSS) applied to county population estimates (U.S. Census). CV disease includes coronary heart disease, stroke and heart attack.
8. **Diabetes** estimates are for adults 18 and over who have been diagnosed within their lifetime based on state rates (BRFSS) applied to county population estimates (U.S. Census).
9. **Poverty** estimates include all ages and come from the U.S. Census Bureau's Small Area Income and Poverty Estimates program. The estimates are derived from a model using estimates of income or poverty from the Annual Social and Economic Supplement and the Current Population Survey, 2016.
10. Adding across rows does not produce valid estimates. Adding the at-risk categories (asthma, COPD, poverty, etc.) will double-count people who fall into more than one category.

### Notes for all state grades tables.

1. Not all counties have monitors for either ozone or particle pollution. If a county does not have a monitor, that county's name is not on the list in these tables. The decision about monitors in the county is made by the state and the U.S. Environmental Protection Agency, not by the American Lung Association.
2. **INC** (Incomplete) indicates that monitoring is underway for that pollutant in that county, but that the data are incomplete for all three years. For particle pollution, some states collected data, but experienced laboratory quality issues that meant the data could not be used for assessing pollution levels.
3. **DNC** (Data Not Collected) indicates that data on that particular pollutant is not collected in that county.
4. The **Weighted Average (Wgt. Avg)** was derived by adding the three years of individual level data (2014-2016), multiplying the sums of each level by the assigned standard weights (i.e. 1=orange, 1.5=red, 2.0=purple and 2.5=maroon) and calculating the average. Grades are assigned based on the weighted averages as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.
5. The Design Value is the calculated concentration of a pollutant based on the 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 numbers refer to micrograms per cubic meter, or  $\mu\text{g}/\text{m}^3$ . Design values for the annual PM<sub>2.5</sub> concentrations by county for the period 2014-2016 are as posted on July 26, 2017 at EPA's website at [https://www.epa.gov/sites/production/files/2017-07/pm25\\_designvalues\\_20142016\\_final\\_07\\_14\\_17.xlsx](https://www.epa.gov/sites/production/files/2017-07/pm25_designvalues_20142016_final_07_14_17.xlsx). The 2014-2016 design values were compared to the 2012 National Ambient Air Quality Standard for Annual PM<sub>2.5</sub>, particularly to the EPA's assessment of data quality required, as discussed on EPA's website at <https://www.epa.gov/pm-pollution/2012-national-ambient-air-quality-standards-naaqs-particulate-matter-pm>. Many design values are missing because state data did not meet quality requirements.
6. The annual average National Ambient Air Quality Standard for PM<sub>2.5</sub> is 12  $\mu\text{g}/\text{m}^3$  as of December 14, 2012. Counties with design values of 12 or lower received a grade of "Pass." Counties with design values of 12.1 or higher received a grade of "Fail."

## PENNSYLVANIA

## American Lung Association in Pennsylvania

www.lung.org/pennsylvania

## AT-RISK GROUPS

County	Total Population	Under 18	65 & Over	Lung Diseases				Lung Cancer	Cardiovascular Disease	Diabetes	Poverty
				Pediatric Asthma	Adult Asthma	COPD					
Adams	102,180	20,719	19,859	1,821	8,611	6,205	66	8,295	9,629	9,218	
Allegheny	1,225,365	232,012	220,511	20,388	105,401	72,243	789	94,220	109,638	137,017	
Armstrong	66,486	12,818	14,150	1,126	5,643	4,206	43	5,726	6,633	9,100	
Beaver	167,429	32,858	34,266	2,887	14,177	10,379	108	14,010	16,242	15,998	
Berks	414,812	93,946	68,350	8,255	34,203	23,413	268	30,351	35,367	52,766	
Blair	124,650	25,704	25,229	2,259	10,403	7,528	80	10,141	11,753	16,430	
Bradford	60,770	13,348	12,320	1,173	4,991	3,695	39	5,013	5,809	6,904	
Bucks	626,399	131,092	110,082	11,519	52,841	37,531	404	49,364	57,473	40,872	
Cambria	134,732	25,906	28,873	2,276	11,411	8,410	87	11,439	13,243	20,033	
Centre	161,464	24,654	21,004	2,166	14,722	8,633	105	10,236	12,038	24,173	
Chester	516,312	119,549	79,511	10,505	42,545	28,983	333	37,222	43,459	35,349	
Clearfield	80,596	14,886	15,974	1,308	6,944	4,987	52	6,660	7,731	10,543	
Cumberland	248,506	50,568	44,186	4,444	20,993	14,411	161	18,817	21,892	18,620	
Dauphin	273,707	61,435	43,803	5,398	22,677	15,388	176	19,819	23,116	30,247	
Delaware	563,402	125,082	88,105	10,991	46,885	31,486	363	40,303	47,042	58,546	
Elk	30,480	5,894	6,523	518	2,589	1,956	20	2,673	3,096	3,025	
Erie	276,207	59,942	45,888	5,267	23,040	15,667	178	20,265	23,616	41,331	
Franklin	153,851	34,585	29,037	3,039	12,585	8,961	99	11,948	13,867	13,779	
Greene	37,197	7,171	6,666	630	3,191	2,212	24	2,893	3,367	5,362	
Indiana	86,364	15,707	15,689	1,380	7,484	5,071	56	6,595	7,673	16,198	
Lackawanna	211,321	42,677	41,209	3,750	17,782	12,645	136	16,863	19,569	28,739	
Lancaster	538,500	128,457	92,089	11,288	43,467	29,881	347	39,063	45,440	56,082	
Lawrence	87,294	17,578	18,112	1,545	7,330	5,395	56	7,311	8,471	11,672	
Lebanon	138,863	31,962	26,249	2,809	11,265	8,014	90	10,697	12,411	13,361	
Lehigh	363,147	82,513	59,446	7,251	29,889	20,263	234	26,183	30,512	48,796	
Luzerne	316,383	61,918	61,655	5,441	26,865	19,120	204	25,471	29,567	44,618	
Lycoming	115,248	23,738	21,232	2,086	9,691	6,791	74	8,959	10,413	16,033	
Mercer	112,913	22,384	23,325	1,967	9,517	6,946	73	9,387	10,877	17,133	
Monroe	166,098	33,572	26,678	2,950	14,234	9,829	107	12,675	14,799	19,303	
Montgomery	821,725	178,353	141,314	15,672	68,482	47,521	530	62,067	72,265	49,697	
Northampton	302,294	61,111	54,909	5,370	25,590	17,882	195	23,512	27,344	27,078	
Perry	45,820	9,957	7,793	875	3,830	2,695	30	3,527	4,108	4,082	
Philadelphia	1,567,872	346,207	201,694	30,422	131,464	80,681	1,007	98,063	115,085	384,148	
Somerset	75,061	13,652	16,057	1,200	6,452	4,751	49	6,447	7,468	9,885	
Tioga	41,467	8,248	8,590	725	3,489	2,538	27	3,430	3,974	5,289	
Washington	207,981	40,915	41,006	3,595	17,651	12,756	134	17,080	19,823	19,752	
Westmoreland	355,458	65,864	77,167	5,788	30,422	22,752	229	31,049	35,953	34,269	
York	443,744	98,587	73,682	8,663	36,836	25,454	287	33,082	38,553	42,508	
<b>Totals</b>	<b>11,262,098</b>	<b>2,375,569</b>	<b>1,922,233</b>	<b>208,748</b>	<b>945,593</b>	<b>647,283</b>	<b>7,262</b>	<b>840,856</b>	<b>979,318</b>	<b>1,397,956</b>	

## PENNSYLVANIA

## American Lung Association in Pennsylvania

www.lung.org/pennsylvania

## HIGH OZONE DAYS 2014-2016

County	HIGH OZONE DAYS 2014-2016			Wgt. Avg.	Grade
	Orange	Red	Purple		
Adams	7	0	0	2.3	D
Allegheny	21	0	0	7.0	F
Armstrong	10	0	0	3.3	F
Beaver	13	0	0	4.3	F
Berks	12	0	0	4.0	F
Blair	6	0	0	2.0	C
Bradford	0	0	0	0.0	A
Bucks	26	2	0	9.7	F
Cambria	1	0	0	0.3	B
Centre	4	0	0	1.3	C
Chester	14	1	0	5.2	F
Clearfield	1	0	0	0.3	B
Cumberland	DNC	DNC	DNC	DNC	DNC
Dauphin	8	0	0	2.7	D
Delaware	17	0	0	5.7	F
Elk	5	0	0	1.7	C
Erie	5	0	0	1.7	C
Franklin	0	0	0	0.0	A
Greene	7	0	0	2.3	D
Indiana	10	0	0	3.3	F
Lackawanna	7	0	0	2.3	D
Lancaster	8	0	0	2.7	D
Lawrence	4	0	0	1.3	C
Lebanon	16	0	0	5.3	F
Lehigh	9	0	0	3.0	D
Luzerne	2	0	0	0.7	B
Lycoming	1	0	0	0.3	B
Mercer	9	0	0	3.0	D
Monroe	4	0	0	1.3	C
Montgomery	17	0	0	5.7	F
Northampton	11	0	0	3.7	F
Perry	INC	INC	INC	INC	INC
Philadelphia	25	3	0	9.8	F
Somerset	1	0	0	0.3	B
Tioga	2	0	0	0.7	B
Washington	10	0	0	3.3	F
Westmoreland	9	0	0	3.0	D
York	12	0	0	4.0	F

## HIGH PARTICLE POLLUTION DAYS 2014-2016

County	24-Hour					Annual	
	Orange	Red	Purple	Wgt. Avg.	Grade	Design Value	Pass/Fail
Adams	1	0	0	0.3	B	8.6	PASS
Allegheny	21	3	0	8.5	F	12.8	FAIL
Armstrong	0	0	0	0.0	A	11.0	PASS
Beaver	1	0	0	0.3	B	10.1	PASS
Berks	8	0	0	2.7	D	9.6	PASS
Blair	0	0	0	0.0	A	10.1	PASS
Bradford	INC	INC	INC	INC	INC	INC	INC
Bucks	INC	INC	INC	INC	INC	INC	INC
Cambria	1	0	0	0.3	B	10.7	PASS
Centre	0	0	0	0.0	A	8.1	PASS
Chester	0	0	0	0.0	A	9.6	PASS
Clearfield	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Cumberland	4	0	0	1.3	C	9.3	PASS
Dauphin	10	0	0	3.3	F	10.0	PASS
Delaware	1	0	0	0.3	B	11.5	PASS
Elk	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Erie	0	0	0	0.0	A	9.3	PASS
Franklin	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Greene	INC	INC	INC	INC	INC	INC	INC
Indiana	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lackawanna	0	0	0	0.0	A	INC	INC
Lancaster	21	1	0	7.5	F	12.8	FAIL
Lawrence	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lebanon	11	0	0	3.7	F	11.2	PASS
Lehigh	INC	INC	INC	INC	INC	INC	INC
Luzerne	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Lycoming	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Mercer	0	1	0	0.5	B	9.1	PASS
Monroe	0	0	0	0.0	A	7.6	PASS
Montgomery	INC	INC	INC	INC	INC	INC	INC
Northampton	6	0	0	2.0	C	9.3	PASS
Perry	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Philadelphia	5	0	0	1.7	C	11.4	PASS
Somerset	DNC	DNC	DNC	DNC	DNC	DNC	DNC
Tioga	0	0	0	0.0	A	INC	INC
Washington	1	0	0	0.3	B	11.0	PASS
Westmoreland	0	0	0	0.0	A	8.7	PASS
York	2	0	0	0.7	B	9.9	PASS

We will breathe easier when the air in every  
American community is clean and healthy.

We will breathe easier when people are free from the addictive  
grip of tobacco and the debilitating effects of lung disease.

We will breathe easier when the air in our public spaces and  
workplaces is clear of secondhand smoke.

We will breathe easier when children no longer  
battle airborne poisons or fear an asthma attack.

*Until then, we are fighting for air.*

#### **About the American Lung Association**

The American Lung Association is the leading organization working to save lives by improving lung health and preventing lung disease, through research, education and advocacy. The work of the American Lung Association is focused on four strategic imperatives: to defeat lung cancer; to improve the air we breathe; to reduce the burden of lung disease on individuals and their families; and to eliminate tobacco use and tobacco-related diseases. For more information about the American Lung Association, a holder of the Better Business Bureau Wise Giving Guide Seal, or to support the work it does, call 1-800-LUNGUSA (1-800-586-4872) or visit: [www.Lung.org](http://www.Lung.org).