



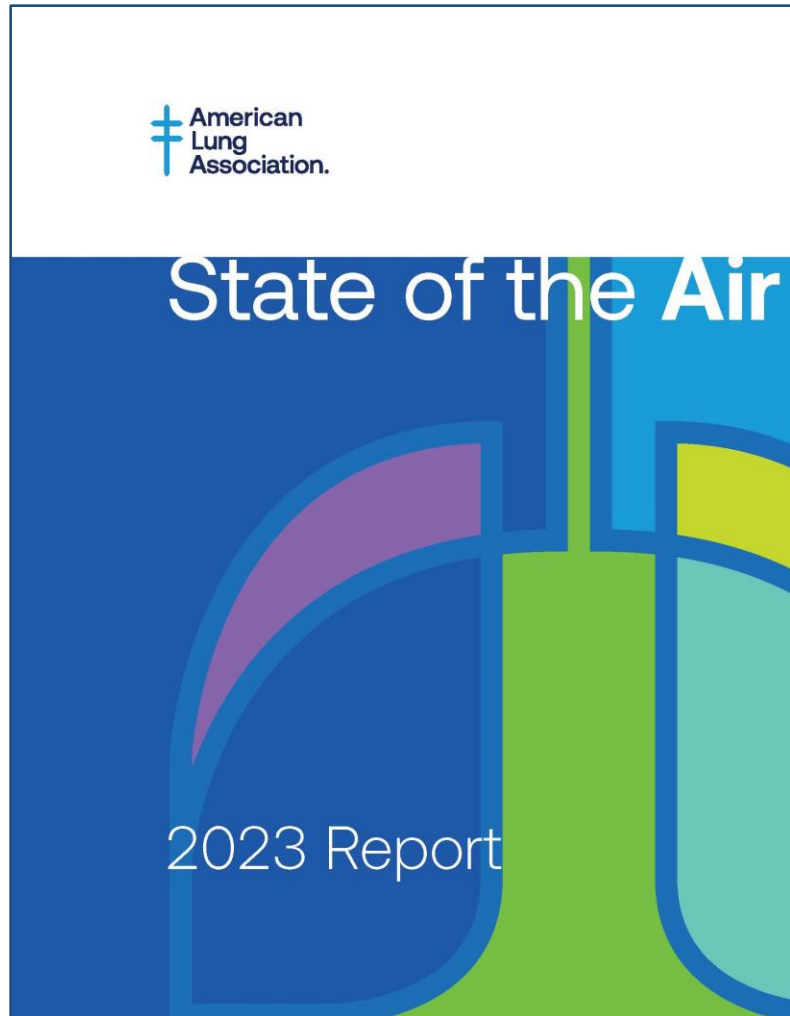
State of the Air 2023

Charlie Gagen, Advocacy Director – TX,OK

May 25, 2023



Our 24th annual report www.lung.org/SOTA



- Puts air pollution into everyday language
- Gives the public local information
- Focuses attention on particle pollution and ozone
- Gives grades to 922 counties with monitors (out of 3,221 counties)
- Ranks 25 metro areas with worst pollution (& cleanest) for 3 pollutants

Particle pollution is a mixture of tiny solid and liquid particles, sometimes called “soot.”

looks like

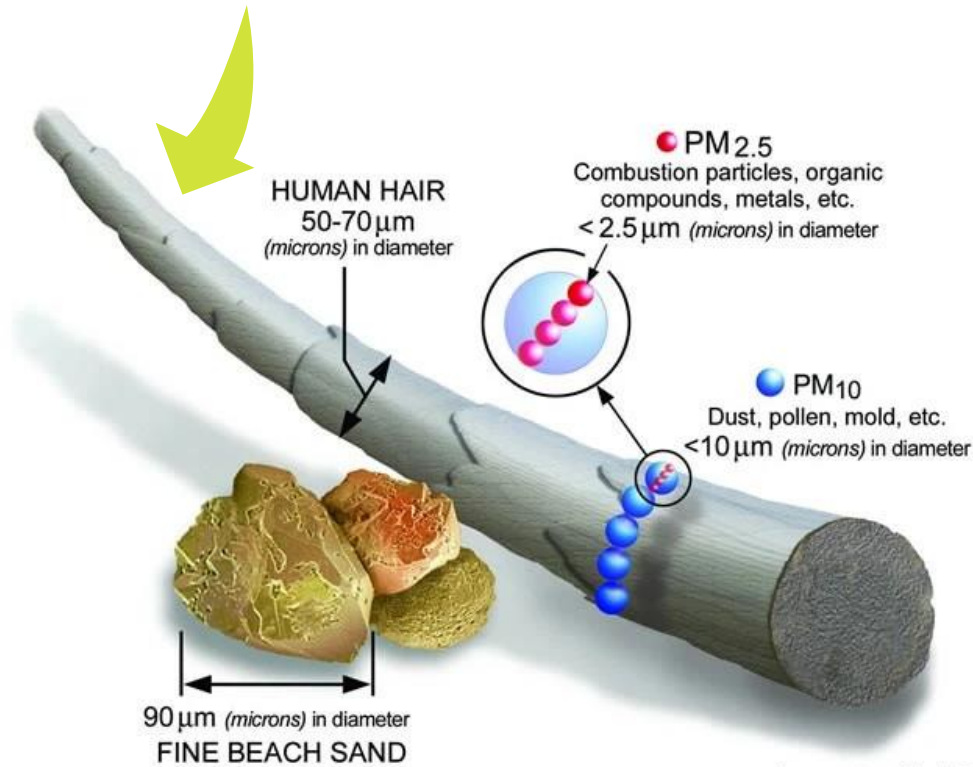
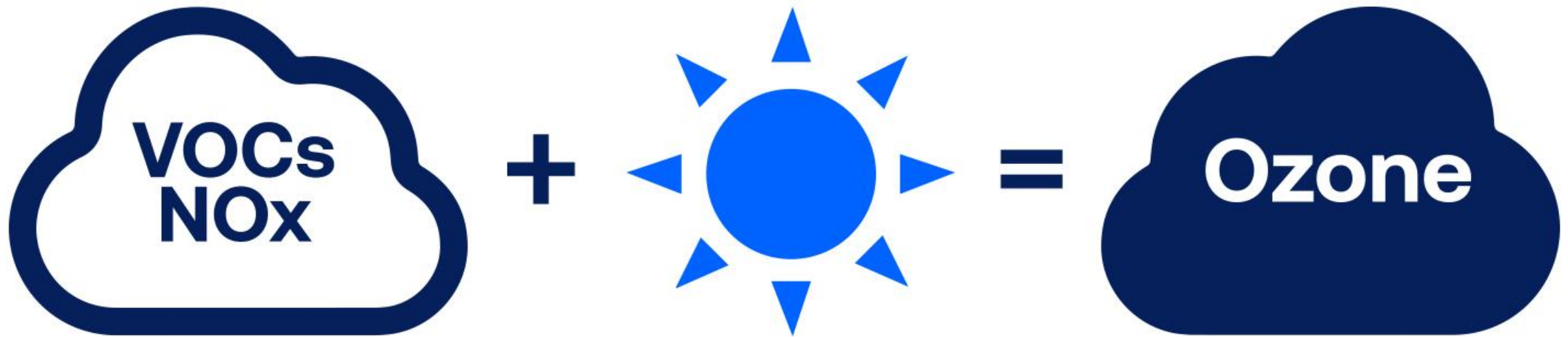


Image courtesy of the U.S. EPA

comes from



Ozone pollution is an odorless, colorless gas that forms most on hot, sunny days, sometimes called “smog.”



Air pollution can harm children and adults in many ways.



Wheezing and coughing



Shortness of breath



Asthma attacks



Worsening COPD



Lung cancer



Premature death



Susceptibility to infections



Heart attacks and strokes



Impaired cognitive functioning



Metabolic disorders



Preterm birth and low birth weight

**More than
3 in 10 Americans
live in places with unhealthy
levels of air pollution.**





People of color are 3.7x more likely than white people to live in a county with 3 failing grades.

Top 10 most polluted cities for ozone (227)

- 1 Los Angeles-Long Beach, CA
- 2 Visalia, CA
- 3 Bakersfield, CA
- 4 Fresno-Madera-Hanford, CA
- 5 Phoenix-Mesa, AZ
- 6 Denver-Aurora, CO
- 7 Sacramento-Roseville, CA
- 8 San Diego-Chula Vista-Carlsbad, CA
- 9 **Houston-The Woodlands, TX**
- 10 Salt Lake City-Provo-Orem, UT

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

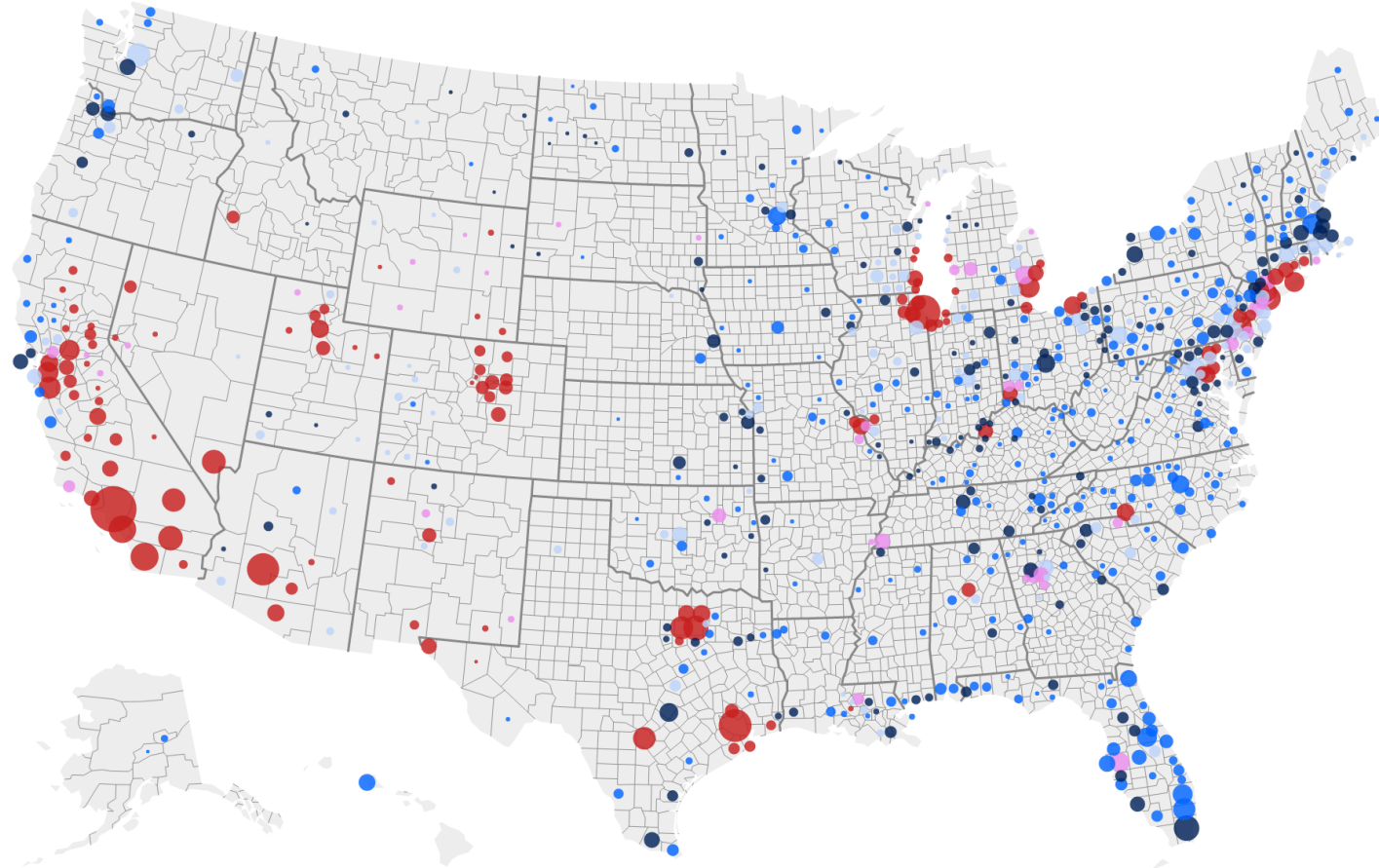


Ozone Pollution Nationwide

Population by County and Ozone Grade 2023

Circle size represents county population

■ A ■ B ■ C ■ D ■ F

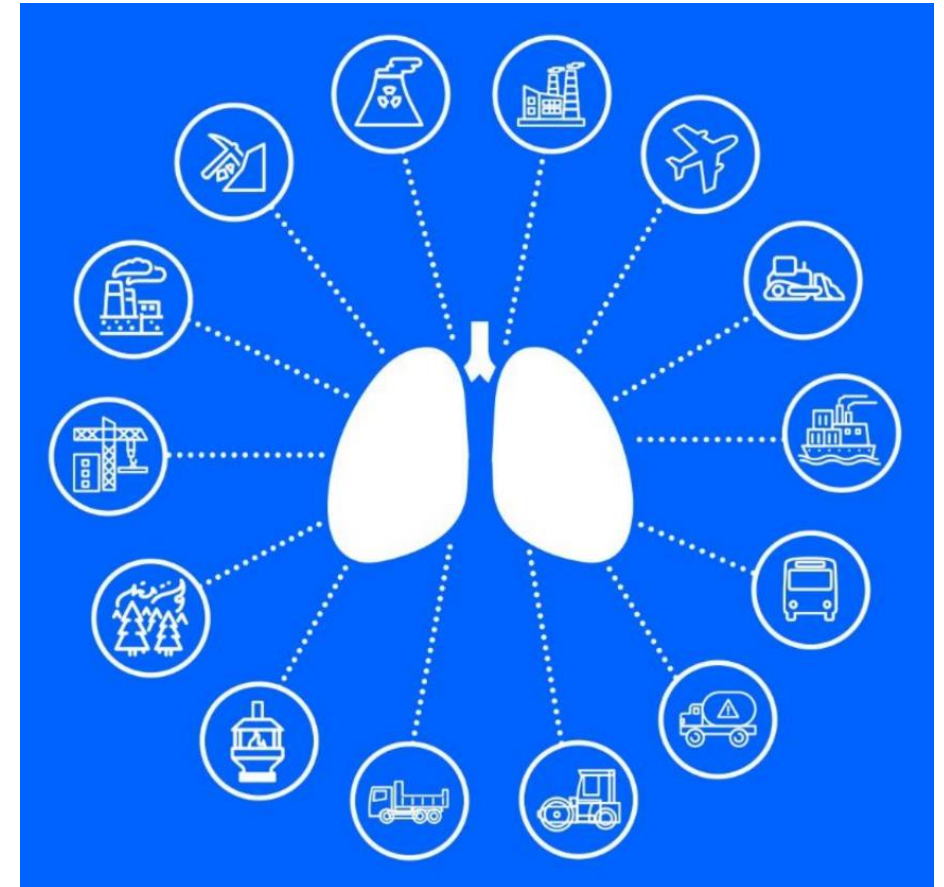


Counties with incomplete or no data not shown

Source: American Lung Association State of the Air 2023 • Created with Datawrapper

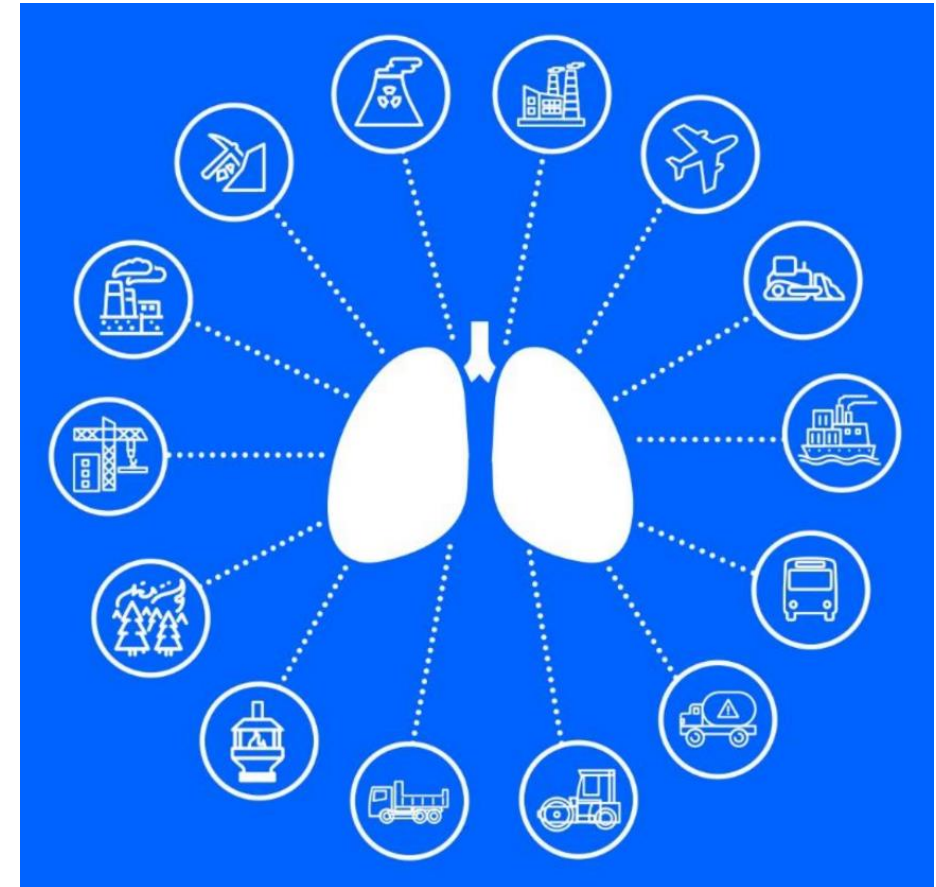
Top 10 most polluted cities for annual particle pollution (200)

- 1** Bakersfield, CA
- 1** Visalia, CA
- 3** Fresno-Madera-Hanford, CA
- 4** Los Angeles-Long Beach, CA
- 5** Fairbanks, AK
- 6** Sacramento-Roseville, CA
- 7** Medford-Grants Pass, OR
- 7** Phoenix-Mesa, AZ
- 7** San Jose-San Francisco-Oakland, CA
- 10** Indianapolis-Carmel-Muncie, IN



Top 10 most polluted short-term particle pollution (223)

- 1 Bakersfield, CA
- 2 Fresno-Madera-Hanford, CA
- 3 Fairbanks, AK
- 4 Visalia, CA
- 5 Reno-Carson City, NV
- 6 San Jose-San Francisco-Oakland, CA
- 7 Redding-Red Bluff, CA
- 8 Sacramento-Roseville, CA
- 9 Chico, CA
- 9 Los Angeles-Long Beach, CA

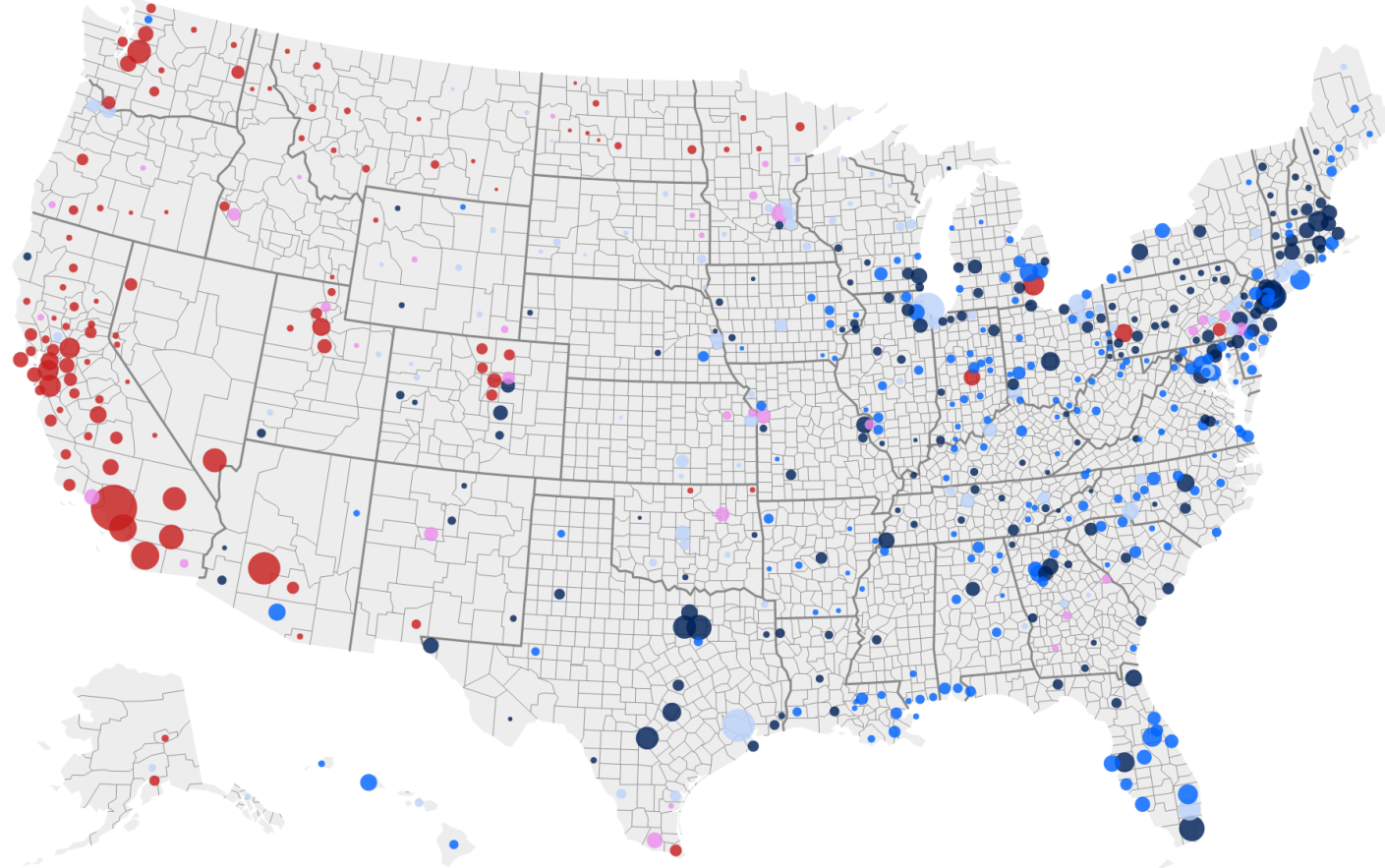


Particle Pollution Nationwide

Population by County and Short-Term PM Grade 2023

Circle size represents county population

■ A ■ B ■ C ■ D ■ F



Counties with incomplete or no data not shown

Source: American Lung Association State of the Air 2023 • Created with Datawrapper

State of the Air 2023

Key Texas Findings

56%

of Texans live in a county with at least one failing grade

Houston-Woodlands Rankings

9th 

in most unhealthy ozone days.

15th 

in unhealthy annual levels of particle pollution.

59th 

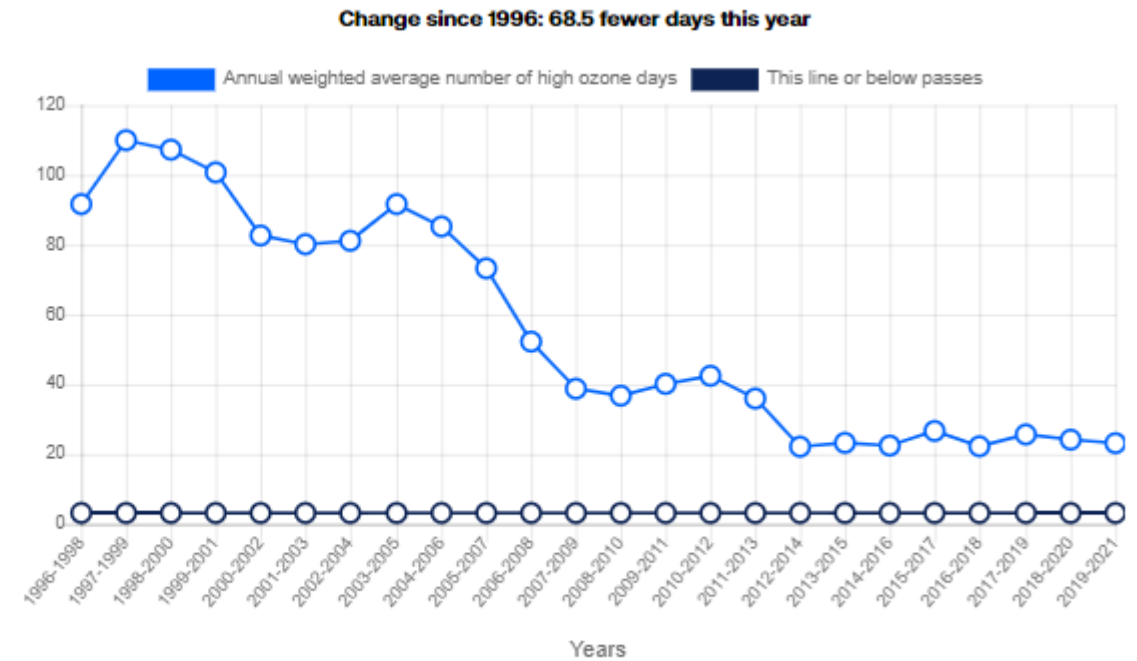
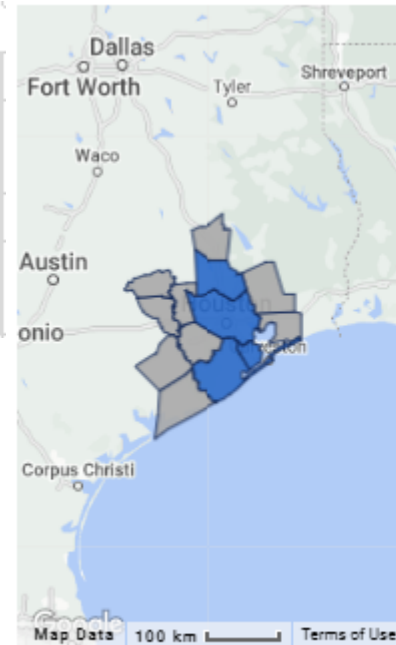
in unhealthy particle pollution days.

State of the Air 2023 Houston Metro Grades

High Ozone Days

Houston reports data on 4 out of 13 counties, Texas reports data on 35 out of 254 counties

County	Grade	Wgt. Avg.
Brazoria	F	7.8
Galveston	F	4
Harris	F	23.2
Montgomery	F	4.8

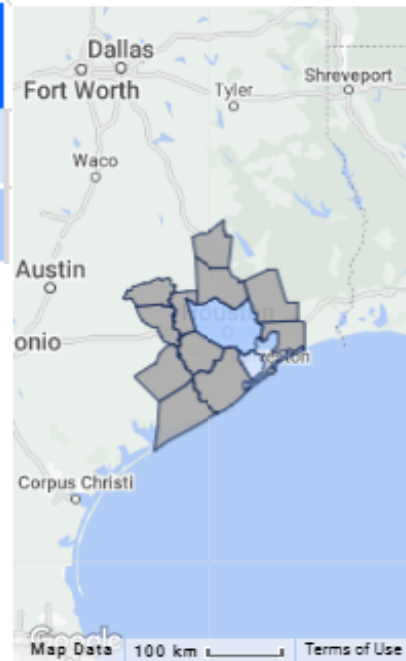


State of the Air 2023 Houston Metro Grades

Particle Pollution Days

Houston reports data on **2** out of **13** counties, Texas reports data on 24 out of 254 counties

County	Grade	Wgt. Avg.
Galveston	B	0.3
Harris	C	2



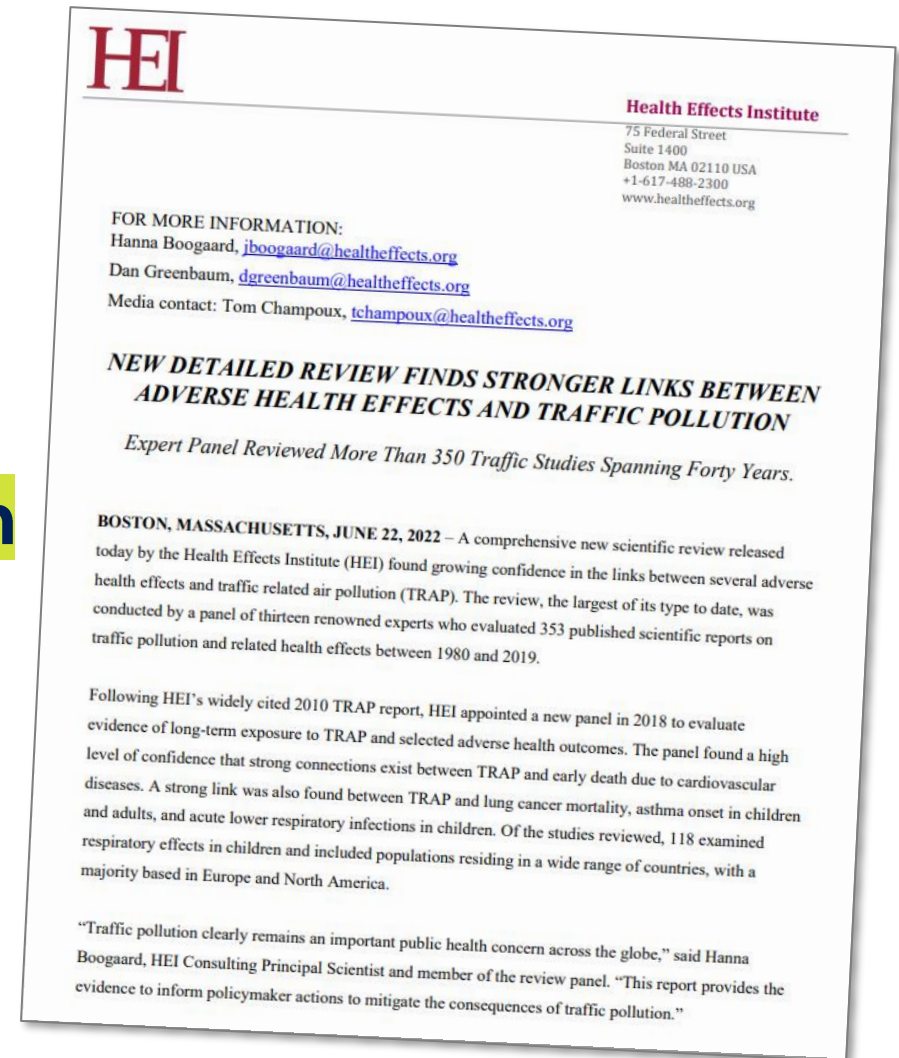
Populations at Risk

County	Total Pop	Under 18	65 & Over	Pediatric Asthma	Adult Asthma	COPD	Lung Cancer	Cardio-vascular Disease	Pregnancy	Poverty Estimate	Non White
Austin	30,380	7,111	6,304	452	2,004	1,644	14	2,133	309	3,122	12,047
Brazoria	379,689	98,396	47,141	6,252	23,742	16,994	173	20,197	4,620	33,053	215,814
Chambers	48,865	13,755	5,734	874	2,951	2,083	22	2,465	598	5,034	18,074
Fort Bend	858,527	231,643	103,703	14,718	53,161	38,381	390	45,488	10,741	61,654	599,619
Galveston	355,062	84,994	54,033	5,400	23,003	17,332	161	21,248	4,209	42,174	157,503
Harris	4,728,030	1,240,902	537,117	78,846	292,122	202,685	2,152	237,486	61,038	767,505	3,419,691
Liberty	97,621	28,107	11,981	1,786	5,866	4,216	44	5,036	1,186	14,473	43,982
Matagorda	36,344	9,523	6,319	605	2,288	1,786	17	2,259	384	8,267	21,138
Montgomery	648,886	168,407	88,311	10,700	40,816	30,111	295	36,356	7,728	67,809	245,536
Walker	77,977	11,518	11,010	732	5,540	3,845	36	4,567	911	14,402	34,495
Waller	59,781	14,419	7,223	916	3,767	2,573	27	3,035	814	7,505	34,751
Washington	35,891	7,652	8,170	486	2,423	2,004	16	2,640	378	4,719	13,097
Wharton	41,721	10,781	7,394	685	2,634	2,055	19	2,608	457	6,575	23,929
TOTAL:	7,398,774	1,927,208	894,440	122,452	460,317	325,709	3,366	385,518	93,373	1,036,292	4,839,676

Traffic Pollution and Health

With a high level of confidence, the Health Effects Institute found **strong connections exist between traffic-related air pollution and early death due to cardiovascular diseases.**

They also found strong links with: **lung cancer mortality**
asthma onset in children & adults
acute lower respiratory infections in children



US EPA reports 72 million Americans live near truck freight routes.

Communities near high-traffic roadways experience higher rates of numerous adverse health effects.

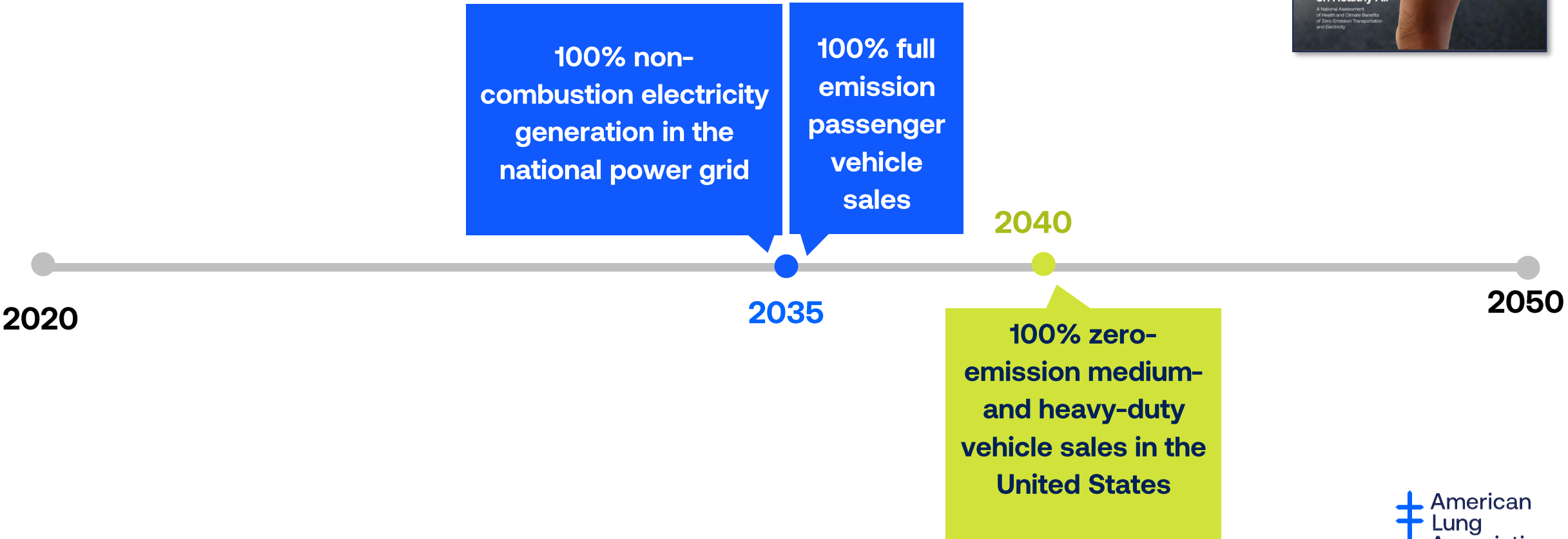
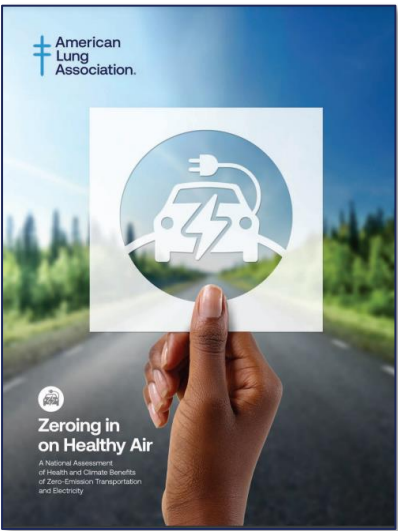
Residents of these communities are more likely to be people of color and have lower incomes.



Zeroing In on Healthy Air



Health Benefits of Zero-Emission Trucks and Electricity



\$1.2 Trillion in public health benefits.

How?



110,000 premature deaths avoided



2.7 Million asthma attacks avoided



13.4 Million lost work days avoided

In Texas, \$104 billion in public health benefits

By 2050:

9,320 premature deaths avoided

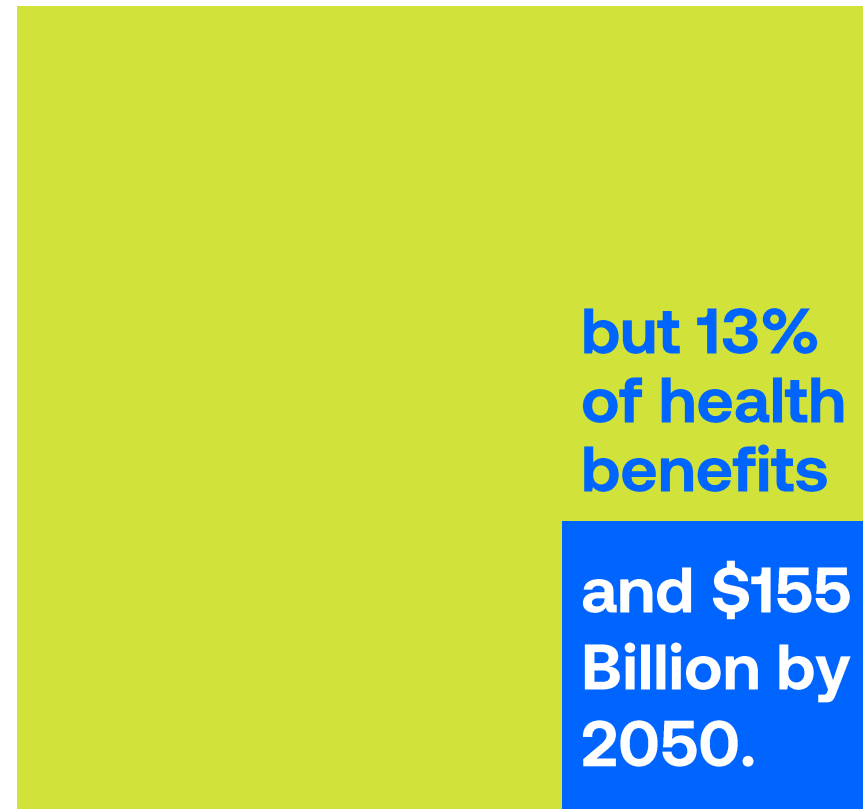
346,000 asthma attacks avoided

1.5 million lost work days avoided

Top 25 Metro Areas, Public Health Benefits	Cumulative Public Health Benefits 2020-2050			
	Health Benefits (Billions)	Premature Deaths Avoided	Asthma Attacks Avoided	Lost Work Days Avoided
1. Los Angeles-Long Beach, CA	\$95.5	8,680	241,000	1,210,000
2. New York-Newark, NY-NJ-CT-PA	\$84.2	7,660	206,000	1,070,000
3. Chicago-Naperville, IL-IN-WI	\$46.5	4,230	113,000	552,000
4. San Jose-San Francisco-Oakland, CA	\$42.5	3,850	113,000	561,000
5. Philadelphia-Reading-Camden, PA-NJ-DE-MD	\$41.1	3,760	86,600	424,000
6. Washington-Baltimore-Arlington, DC-MD-VA-WV-PA	\$38.9	3,540	104,000	516,000
7. Miami-Port St. Lucie-Fort Lauderdale, FL	\$36.5	3,320	62,300	342,000
8. Houston-The Woodlands, TX	\$33.4	3,000	130,000	568,000
9. Detroit-Warren-Ann Arbor, MI	\$29.2	2,690	55,100	268,000
10. Dallas-Fort Worth, TX-OK	\$28.0	2,530	88,300	405,000

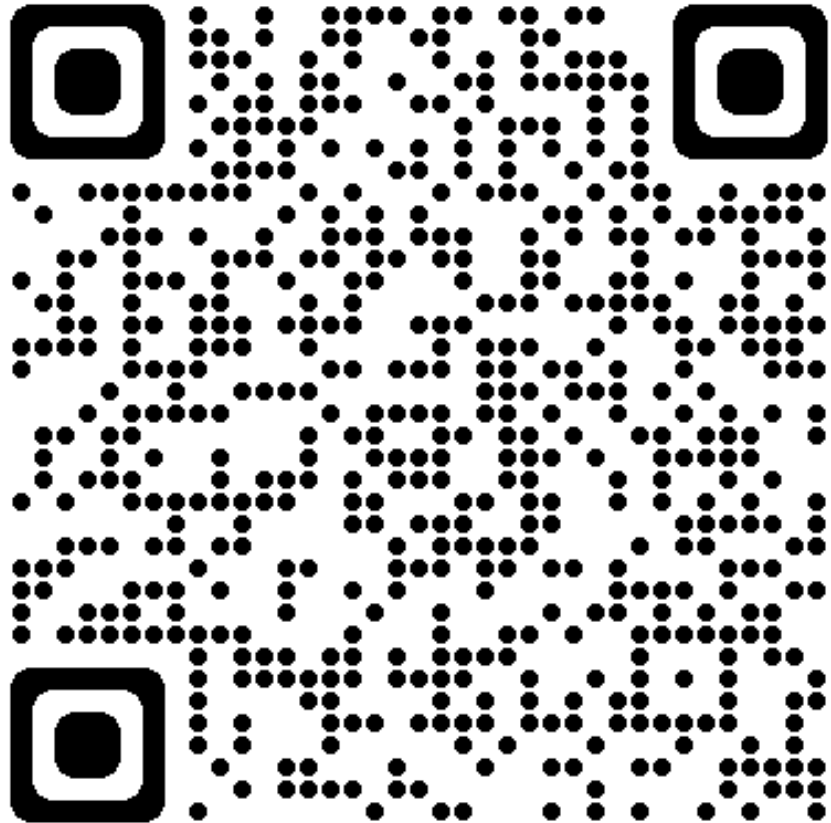
Equity matters.

The 100 counties with the highest % people of color represent...



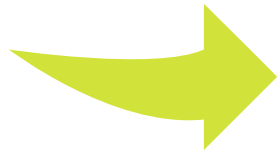
Get Involved: Advocacy Opportunity

Call on Biden Administration to Set Stronger Standards



Questions?

Ask now or anytime



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