

The Most Challenging Places to Live with Asthma



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2024 Asthma Capitals

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About the Asthma and Allergy Foundation of America (AAFA)

Founded in 1953, AAFA is the oldest and largest non-profit patient organization dedicated to saving lives and reducing the burden of disease for people with asthma, allergies, and related conditions through research, education, advocacy, and support. AAFA offers extensive support for individuals and families affected by asthma and allergic diseases, such as food allergies and atopic dermatitis (eczema). Through its online patient support communities, network of regional chapters, and collaborations with community-based groups, AAFA empowers patients and their families by providing practical, evidence-based information and community programs and services. AAFA is the only asthma and allergy patient advocacy group that is certified to meet the standards of excellence set by the National Health Council. For more information, visit aafa.org.

About This Report

AAFA publishes the Asthma Capitals™ report to raise awareness about the nationwide impacts of asthma. The report analyzes data from across the contiguous United States and ranks the 100 largest cities where it is challenging to live with asthma. The report ranks cities by the most critical of health outcomes - asthma prevalence, emergency department visits due to asthma attacks, and asthmarelated mortality. The outcomes are not weighted equally. The report also examines asthma risk factors that influence the outcomes.

Acknowledgements

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AMGEN sanofi REGENERON

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The views and opinions expressed in this report are those of the AAFA authors and do not necessarily reflect the policies or positions of other individuals, organizations, or companies.

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Introduction

The Asthma and Allergy Foundation of America (AAFA) publishes the Asthma Capitals™ report each year to raise awareness about the nationwide impacts of asthma and highlight how location may influence asthma in cities across the country.

The Asthma Capitals report ranks 100 cities in the contiguous U.S. based on these health outcomes: asthma prevalence, emergency department (ED) visits for asthma, and deaths due to asthma.

The report also discusses risk factors that contribute to these outcomes: poverty, indoor and outdoor air quality, access to specialist medical care, pollen allergy, medicine use, tobacco policies, and the rate of uninsured residents. The data in this report includes the 100 most populated U.S. cities (metro areas), and does not include information from Alaska, Hawaii, Puerto Rico, or tribal nations. The residents of these areas are greatly affected by asthma, but more data is needed to get a better picture of the impact.

In addition to the annual rankings, this year's report includes:

 Sample resolutions for designating "Asthma Peak Week" and "Asthma and Allergy Awareness Month" in your state

- A toolkit to help advocates champion better policies for people living with asthma
- A spotlight on policies to support better access to asthma medicines and asthma care
- An update on the work AAFA is supporting to address asthma disparities in local communities-including in Allentown, the #1 Asthma Capital for the second year in a row

This report is published in September in recognition that September is a peak month for people with asthma and allergies, especially children. Each September, doctors treat more people for asthma episodes and attacks, and asthma ED visits and hospitalizations increase (see page 5).1

Risk factors such as poverty, exposure to pollutants, and access to health care play an important role in asthma outcomes. But these aren't the only reasons a person may experience asthma exacerbations. Where people live may influence whether or not they have this common chronic lung disease and how successfully they can manage it.

Asthma remains one of the most common chronic diseases in our nation. But most asthma-related ED visits and deaths are preventable. We hope the 2024 Asthma Capitals report inspires states, communities, and stakeholders to take action. This report highlights where we can combine and focus our efforts through advocacy, awareness, and interventions.





September Is a Peak Month for Asthma

September is a challenging month for people with asthma. September brings a number of asthma triggers that cause more asthma attacks, ED visits, and hospital stays in this month than any other during the year. This makes it the "Asthma Peak Month." The third week of September is "Asthma Peak Week," when asthma episodes typically hit their highest point of the year.

In September, people with asthma come in contact with several asthma triggers at once:

- Ragweed, the most common fall pollen allergy, peaks in September throughout much of the United States. For people with allergic asthma and an allergy to ragweed, ragweed pollen can cause asthma symptoms.
- Mold counts tend to go up as leaves begin to collect on the ground. Mold grows in wet conditions. For the West Coast states, September marks the return of the rainy season. In some parts of the South, humidity can still be high in the fall too. Mold irritates airways and can cause asthma and allergy symptoms.
- Children return to school and are exposed to respiratory illnesses such as the flu, COVID-19, respiratory syncytial virus (RSV), and colds. These illnesses spread easily in crowded indoor spaces such as schools. Children returning to school in the fall tend to get sick first and then bring illnesses home to their families and older adults. Getting sick with a respiratory illness can make it harder for someone with asthma to breathe.
- · Poor indoor air quality is a serious concern in schools as well. Many school buildings are older and in poor condition. They need repair, but the schools may not have money to fix their buildings. This impacts children with asthma because they come in contact with irritants and allergens every school day. (For example: air pollution, mold, animal dander, pollen, dust mites, cleaning products, and more)
- Extreme weather and wildfires can occur in September in as well. Weather changes such as extreme heat and humidity, thunderstorms, and the later transition to cooler fall temperatures are all asthma triggers.

With these events all happening at the same time, people with asthma are exposed to a lot of asthma triggers. This can make it hard to keep airway inflammation under control. The September asthma peak tends to affect children first as they start a new school year and come into contact with a lot of these asthma triggers.

If you'd like to work on an Asthma Peak Week resolution for your state, contact advocacy@aafa@org. AAFA has also included sample language on pages 38-39.





Map of the Top 20 Most Challenging Places to Live with Asthma in 2024



These are the top 20 Asthma Capitals for 2024 based on estimated asthma prevalence, emergency department visits due to asthma, and asthma-related fatalities. The burden of asthma falls heavily on Northeastern and Southern states. The full list of top 100 cities can be found on page 7 in this report.

- 1. Allentown, PA
- 2. Rochester, NY
- 3. Detroit, MI
- 4. Springfield, MA
- 5. Philadelphia, PA
- 6. Cleveland, OH
- 7. Lakeland, FL
- 8. Baltimore, MD
- 9. Charleston, SC
- 10. Providence, RI

Fresno, CA
Richmond, VA
Greenville, SC
Harrisburg, PA
Memphis, TN
Spokane, WA
St. Louis, MO
Poughkeepsie, NY
New York, NY
Columbus, OH





2024 Asthma Capitals™

Overall Ro (Factors are not	Il Rankings Worse Than Average Average Better Than Average re not weighted equally. Total scores are rounded for the purposes of this chart.)					rage
2024 Overall Ranking	Overall	Metropolitan Area	Total Score (Avg. 56.08)	Subtotal: Estimated Asthma Prevalence	Subtotal: Crude Death Rate for Asthma	Subtotal: ED Visits for Asthma
1		Allentown, PA	100.00			
2		Rochester, NY	92.98			
3		Detroit, MI	88.81			
4		Springfield, MA	87.56			
5		Philadelphia, PA	86.72			
6		Cleveland, OH	83.24			
7		Lakeland, FL	81.41			
8		Baltimore, MD	76.99			
9		Charleston, SC	74.68			
10		Providence, RI	74.31			
11		Fresno, CA	71.89			
12		Richmond, VA	71.47			
13		Greenville, SC	69.60			
14		Harrisburg, PA	68.95			
15		Memphis, TN	68.44			
16		Spokane, WA	68.17			
17		St. Louis, MO	68.11			
18		Poughkeepsie, NY	67.92			
19		New York, NY	67.91			
20		Columbus, OH	67.06			
21		Phoenix, AZ	66.69			
22		Sacramento, CA	66.49			
23		Worcester, MA	65.66			
24		Washington, DC	63.79			
25		Syracuse, NY	63.60			
26		Albany, NY	63.31			
27		Tucson, AZ	63.07			
28		Dallas, TX	62.75			
29		Miami, FL	62.72			
30		Columbia, SC	62.64			
31		Virginia Beach, VA	62.07			
32		Nashville, TN	61.62			





Overall Rankings Worse Than Average Average

Better Than Average

(Factors are not weighted equally. Total scores are rounded for the purposes of this chart.)

2024 Overall Ranking	Overall	Metropolitan Area	Total Score (Avg. 56.08)	Subtotal: Estimated Asthma Prevalence	Subtotal: Crude Death Rate for Asthma	Subtotal: ED Visits for Asthma
33		Orlando, FL	61.55			
34		Omaha, NE	61.34			
35		Stockton, CA	61.27			
36		Hartford, CT	61.15			•
37		Cincinnati, OH	60.07			
38		Las Vegas, NV	59.20			
39		Dayton, OH	58.85			
40		Louisville, KY	58.28			
41		Toledo, OH	57.52			
42		Jacksonville, FL	57.13			
43		Atlanta, GA	57.09			
44		Greensboro, NC	56.76			
45		Pittsburgh, PA	56.57			
46		Chattanooga, TN	56.40			
47		Minneapolis, MN	56.10			
48		Jackson, MS	55.79			
49		Los Angeles, CA	55.53			
50		San Diego, CA	55.12			
51		Daytona Beach, FL	54.54			
52		Akron, OH	54.31			
53		Chicago, IL	54.25			
54		Albuquerque, NM	54.13			
55		New Orleans, LA	53.74			
56		Buffalo, NY	53.18			
57		San Antonio, TX	52.43			
58		Bridgeport, CT	52.41			
59		Seattle, WA	52.18			
60		Palm Bay, FL	51.99			
61		Indianapolis, IN	51.28			
62		Raleigh, NC	50.33			
63		McAllen, TX	50.25			
64		San Francisco, CA	50.20			
65		Kansas City, MO	49.63			
66		Oklahoma City, OK	49.51			





Overall Rankings Worse Than Average Average

Better Than Average

(Factors are not weighted equally. Total scores are rounded for the purposes of this chart.)

2024 Overall Ranking	Overall	Metropolitan Area	Total Score (Avg. 56.08)	Subtotal: Estimated Asthma Prevalence	Subtotal: Crude Death Rate for Asthma	Subtotal: ED Visits for Asthma
67		Wichita, KS	49.46			
68		El Paso, TX	49.42		•	
69		Riverside, CA	49.29			
70		Houston, TX	48.99		•	
71		Sarasota, FL	47.97			
72		Tampa, FL	47.64		•	
73		Oxnard, CA	47.59			
74		Boston, MA	47.48			
75		Baton Rouge, LA	47.29			
76		Milwaukee, WI	47.15			
77		San Jose, CA	47.09			
78		Bakersfield, CA	46.37			
79		Ogden, UT	45.89			
80		Cape Coral, FL	45.19			
81		Grand Rapids, MI	43.76			
82		Tulsa, OK	43.57			
83		New Haven, CT	43.52			
84		Birmingham, AL	43.28			
85		Denver, CO	43.26			
86		Salt Lake City, UT	42.94			
87		Augusta, GA	42.00			
88		Portland, OR	41.56			
89		Austin, TX	41.24			
90		Boise, ID	40.07			
91		Durham, NC	38.77			
92		Knoxville, TN	38.22			
93		Charlotte, NC	37.35			
94		Little Rock, AR	34.89			
95		Colorado Springs, CO	32.78			
96		Fayetteville, AR	32.61			
97		Madison, WI	32.56			
98		Winston-Salem, NC	30.54			
99		Provo, UT	30.35			
100		Des Moines, IA	27.15			





Regional Rankings Worse Than Average 🔺 Average 🕒 Better Than Average

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2 Baltimore, MD 76.99 Image: MD Image:							
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5 Greenville, SC 69.60 🔳 🔶 🔺							
MIDWEST							
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1 Detroit, MI 88.81 🔳 📕							
2 Cleveland, OH 83.24							
3 St. Louis, MO 68.11 🔺 🔳 🔺							
4 Columbus, OH 67.06 🔺 🔺	1						
5 🔺 Omaha, NE 61.34 🔺 📕 🔺							
WEST							
2024 Regional RankingsOverallMetropolitan AreaTotal ScoreSubtotal: Estimated AsthmaSubtotal: Crude Death Rate 	otal: its for ma						
1 Fresno, CA 71.89 🔳							
2 Spokane, WA 68.17 🔳 🔺 🔺							
3 Phoenix, AZ 66.69 🖬 🔺							
4 Sacramento, CA 66.49 🔳 🔺 🔺							
5 🔺 Tucson, AZ 63.07 🔺 🔳 🔺							





Asthma Health Outcomes

AAFA ranks cities based on 3 health outcomes: asthma prevalence (how many people have asthma), asthma-related emergency department (ED) visits, and asthma-related mortality (death) rates. The outcomes are not weighted equally.

Estimated Asthma Prevalence

Nearly 28 million people living in the United States have asthma.²³ This equals about 1 in 12 people. Nationally, the prevalence of "current asthma" has increased from 20.3 million people in 2001.

Prevalence rates differ significantly by socioeconomic status, race, ethnicity, age and sex:

- Socioeconomic status is highly associated with asthma prevalence. Persons living below 100% of the Federal Poverty Level (FPL) are more likely to have asthma than those living at any percentage above the poverty level. Around 12.5% of persons with family income below 100% of the FPL have asthma, compared to 11.1% of persons with family income of 100%-199% of the FPL and 7.9% of persons with family income of at least 200% of the FDL.²
- Puerto Ricans have the highest rate of asthma prevalence compared to any other racial or ethnic group in the United States.⁴
- Black people in the U.S. are also disproportionally diagnosed with asthma compared to White people.⁴ Around 11.7% of Black people in the U.S. have asthma, compared to 8.9% of White Americans people.²
- While there are more adults with asthma than children, asthma is a leading chronic disease in children.⁵ Only dental cavities are more common in kids than asthma.⁶
- Asthma is more common in female adults than male adults. Around 11.0% of female adults have asthma, compared to 6.8% of male adults.²

Asthma Prevalence Ranking	Metropolitan Area	Overall Asthma Capital National Ranking	Rochester, NY	
1	Rochester, NY	2	l.	
2	Springfield, MA	4		
3	Detroit, MI	3		
4	Allentown, PA	1		
5	Harrisburg, PA	14		
6	Philadelphia, PA	5		J
7	Albany, NY	26		
8	Providence, RI	10	/ I-E	~
9	Cleveland, OH	6		1
10	Fresno, CA	11	EL CAR	45

The cities with the highest estimated asthma prevalence[†] are:

†For each city included in the 2024 Asthma Capitals, AAFA obtained an estimated asthma prevalence for its respective MSA. For this report, asthma prevalence is estimated using claims data for individuals who sought asthma care at any point in the 2023 calendar year. While this is not an exact measure of prevalence, it helps provide data that can be compared from city to city. Other prevalence estimates, such as those from the CDC, use self-reported data through surveys.





Emergency Department Visits

Asthma can trigger severe symptoms that require a visit to the ED. Increased ED visits are a sign of poor asthma control. Nationally, asthma accounts for nearly 1 million emergency department visits each year.⁷

Most asthma-related ED visits can be prevented. Effective asthma management-including reducing exposure to asthma triggers, having access to and taking prescribed asthma medicine, and following an Asthma Action Plan-may help reduce ED visits and hospitalizations.

Asthma-related ED visits are 6 times higher for Black patients than for White patients. Children are more likely than adults to have asthma-related ED visits, with children ages 0 to 4 having the highest rates of asthma-related ED visits.7

Emergency Department Visits Ranking	Metropolitan Area	Overall Asthma Capital National Ranking
1	Allentown, PA	1
2	Memphis, TN	15
3	Lakeland, FL	7
4	Columbus, OH	20
5	Raleigh, NC	62
6	Virginia Beach, VA	31
7	Stockton, CA	35
8	Dayton, OH	39
9	Augusta, GA	87
10	Jacksonville, FL	42

The cities with the highest asthma-related ED visits[†] are:



†For each city included in the 2024 Asthma Capitals, AAFA obtained the total number of ED visits where an asthma ICD-10 code was included in a diagnosis field, for the respective census-designated metropolitan statistical area, or MSA, for calendar year 2023. Analyses included estimating the ED rate per 10,000 asthma patients.

To prevent asthma emergencies, people with asthma must:

- Avoid (or reduce) exposure to known asthma triggers, and
- Use medicines to keep their airways open.



It can be difficult to fully avoid all asthma triggers. When exposed to asthma triggers, the airways begin to swell, constrict, and fill with mucus. Asthma control medicines treat and prevent airway inflammation but are only effective if people have access to them and use them.



Asthma-Related Mortality

Around 10 people in the U.S. die from asthma each day. Nationally, there were 3,602 deaths attributed to asthma in 2022.8 There hasn't been meaningful improvement in these numbers in the last decade. In 2020, deaths due to asthma rose for the first time in 20 years and rose again slightly from 2021 to 2022.9

Some populations are at higher risk for dying from asthma than others. The causes of higher asthma death rates are complex but must be addressed to save lives. The top 10 cities for asthma-related deaths must take action to prevent more tragedies.

Asthma- Related Deaths Ranking	Metropolitan Area	Overall Asthma Capital National Ranking	St. Louis, MO
1	St. Louis, MO	17	
2	Baltimore, MD	8	
3	Richmond, VA	12	
4	Jackson, MS	48	
5	Chattanooga, TN	46	
6	Fresno, CA	11	
7	Memphis, TN	15	
8	New York, NY	19	
9	Springfield, MA	4	
10	Tucson, AZ	27	

The cities with the most asthma-related deaths[†] are:

†For each city included in the 2024 Asthma Capitals, AAFA obtained the estimated asthma-related crude death rate per 100,000 people for its respective county from 2018-2022 (most recent available data).

To reduce the risk of death from asthma, it is important to:

- Have access to asthma medicines and take them as prescribed
- · Seek medical care if symptoms occur more than twice per week
- Avoid or reduce exposure to asthma triggers
- · Learn the signs and symptoms of asthma, including early warning signals
- Have an Asthma Action Plan and take quick action according to the plan

If someone's life is in danger, seek emergency care immediately. An Asthma Action Plan can help identify when asthma is a medical emergency. Visit **aafa.org/actionplan** to download a sample plan.









Risk Factors That Can Worsen Asthma or Influence Asthma Rates

A risk factor is any attribute, characteristic, or exposure of an individual that increases the likelihood of developing a disease, like asthma. While the risk factors outlined in this report are not calculated as part of the overall ranking, they are important to address as they contribute to rates of asthma prevalence, emergency department visits, and mortality. These are some of the top risk factors for asthma:

- Poverty
- Lack of health insurance
- Exposure to air pollution
- Poor indoor air quality (poor housing quality)
- Pollen allergy
- Smoking (cigarettes, cigars, vapes)
- Lack of access to specialists
- Asthma guick-relief medicine use*
- Asthma control medicine use*

*High numbers of prescriptions for asthma medicines can indicate a larger population managing persistent asthma or more frequent severe or uncontrolled asthma.

Social and Structural Determinants of Health

Social determinants of health (SDOH) can affect how people control their asthma or gain access to health care. Inequities in SDOH are key drivers in asthma disparities.

Historically, local and federal policies and programs negatively affected these factors. To improve asthma health outcomes, policies and programs must address and remove barriers to:

- Access to quality, affordable health care
- Food and economic security
- Good quality housing
- Clean and safe air

- Access to job and educational opportunities
- Access to technology, such as the internet
- Access to transportation
- Climate-resilient communities





Risk Factor: Poverty

Socioeconomic status plays a major role in the development of asthma and a person's ability to manage it. Persons living below 100% of the Federal Poverty Level (FPL) are more likely to have asthma than people living at any percentage above the poverty level.²

Numerous studies have explored and confirmed the link between poverty and poor asthma outcomes. For example, living in poverty directly affects:

- Housing quality and increased exposure to indoor asthma triggers
- Physical environment and increased exposure to outdoor asthma triggers
- Ability to pay for asthma care due to competing priorities and basic needs
- Access to quality asthma care due to suboptimal health care coverage

Many cities in our report have poverty as a top risk factor. Good asthma management can be difficult when families are worried about paying for housing, clothing, utilities, and food. The cost of care may affect the decision to seek medical care. A lack of reliable transportation and paid sick leave may influence a person's ability to attend regular health care appointments.

These cities have the highest rates of poverty[†]:

Poverty Ranking	Metropolitan Area	Overall Asthma Capital National Ranking	McAllen, TX
1	McAllen, TX	63	
2	Jackson, MS	48	
3	New Orleans, LA	55	
4	Richmond, VA	12	
5	Philadelphia, PA	5	
6	St. Louis, MO	17	
7	Detroit, MI	3	
8	El Paso, TX	68	
9	Baltimore, MD	8	
10	Fresno, CA	11	

For each city included in the 2024 Asthma Capitals, AAFA obtained the poverty rate for its respective county. The estimates range from 7.5% to 27.4%.

2024 Poverty Guidelines for the 48 Contiguous States and the District of Columbia:¹⁰

- 1 person in household: \$15,060
- 2 persons in household: \$20,440
- 3 persons in household: \$25,820
- 4 persons in household: \$31,200
- 5 persons in household: \$36,580

For resources to help with the costs of some asthma medicines, visit: aafa.org/asthma-assistance





Risk Factor: Lack of Health Insurance

Access to health care plays an important role in managing asthma symptoms, preventing exacerbations, and promoting better quality of life. For patients managing a chronic condition like asthma that requires medicine year-round, having insurance is often a big help. However, insurance itself can also be costly. These costs may vary depending on employment status and whether the job offers health insurance as a benefit and pays any of the costs. Other options include marketplace health insurance and government-sponsored insurance, like Medicare or Medicaid. Some states have expanded health insurance options for their residents while others have not. Racial and ethnic minority populations disproportionately experience barriers to health insurance, contributing to racial and ethnic disparities in health care.

Lack of Insurance Ranking	Metropolitan Area	Overall Asthma Capital National Ranking
1	McAllen, TX	63
2	Dallas, TX	28
3	El Paso, TX	68
4	Houston, TX	70
5	San Antonio, TX	57
6	Cape Coral, FL	80
7	Miami, FL	29
8	Oklahoma City, OK	66
9	Lakeland, FL	7
10	Tulsa, OK	82

These cities have the highest number of uninsured residents[†]:



Texas is home to the largest number of uninsured people of any state in the country."

†For each city included in the 2024 Asthma Capitals, AAFA obtained the uninsured rate for its respective county. The estimates range from 3% to 30%.

Numerous studies have shown that the Affordable Care Act's (ACA) Medicaid expansion has improved access to coverage and care since states began implementing expansion in 2014.^{12,13}

In fact, coverage expansions put in place by the ACA served as a safety net for people who lost jobs or health insurance coverage during the COVID-19 pandemic.¹⁴ As of 2024, only 10 states have yet to expand their Medicaid programs: Alabama, Florida, Georgia, Kansas, Mississippi, South Carolina, Tennessee, Texas, Wisconsin, and Wyoming.¹⁵ For the millions of uninsured people in these states, the decision not to expand has left them without an option for affordable health insurance.

In previous research conducted by AAFA, the top 3 reasons people cited as reasons why they didn't take their prescribed asthma treatments were due to not being able to afford the medicines, the cost of the medicines, and the lack of health insurance coverage.¹⁶





Risk Factor: Exposure to Air Pollution

Poor air quality can negatively affect everyone's health. Research shows that air pollution can make asthma worse and trigger asthma symptoms.¹⁷ It also causes increased rates of emergency room visits, hospital admissions, and school absenteeism related to asthma. Air pollution includes gases, smoke from fires, volcanic ash, dust particles, emissions from transportation, and other substances that can harm the lungs.

The U.S. Air Quality Index (AQI) is EPA's way of reporting air quality. Major pollutants tracked in the AQI are:

- Harmful gases (ground-level ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide)
- Particle pollution (also called particulate matter or soot pollution, reported by size: PM2.5 and PM10)

Ground-level ozone, a gas, is one of the most common air pollutants. Ozone contributes to what we typically experience as smog or haze. Ozone triggers asthma because it is irritating to the lungs and airways. Other forms of air pollution can also trigger asthma. Small particles in the air found in haze, smoke, and airborne dust can pass through your nose or mouth and get into your lungs. People with asthma are at greater risk from breathing in small particles. The particles can make asthma worse.

More than 40% of the U.S. population lives in areas with unhealthy levels of ozone or particle pollution, and this number has increased in recent years.¹⁸ Climate change—a public health emergency-is one of the most critical explanations for this increase in pollution.

These cities all received of	an F rating fron	n the American Lung	y Association's 202	24 State of the Air
Report for high ozone day	ys and particle	pollution [†] :		

Metropolitan Area	Overall Asthma Capital National Ranking
Phoenix, AZ	21
Bakersfield, CA	78
Fresno, CA	11
Los Angeles, CA	49
Riverside, CA	69
Sacramento, CA	22
San Diego, CA	50
San Jose, CA	77
Denver, CO	85
Detroit, MI	3
Albuquerque, NM	54
Las Vegas, NV	38
Provo, UT	99
Salt Lake City, UT	86
Seattle, WA	59

In 2024-thanks in part to advocacy by AAFA's community-the EPA released an updated standard for the National Ambient Air Quality Standards (NAAQS) for Particulate Matter (PM), also known as soot pollution.

The updated standard makes efforts to improve air quality by tightening the annual standard from 12 micrograms per cubic meter to 9 micrograms per cubic meter. Children, seniors, and people with chronic conditions like asthma will benefit from today's action. Per EPA's estimates, the new standard will save 4,500 lives, avoid 5,700 cases of asthma onset, and avoid 800,000 cases of asthma symptoms.

While this updated annual standard will improve air quality and reduce health harms, there is more progress to be made. AAFA continues to advocate for stronger limits on spikes in soot pollution.

†For each city included in the 2024 Asthma Capitals report, AAFA obtained the grades for high ozone days and particle pollution for the respective county. Grades were averaged to produce an overall grade, ranging from A to F.



RESEARCH HIGHLIGHT: Unlocking a Respiratory Revolution in Children's Healthcare with Environmental Data

To provide the highest quality care, healthcare systems and professionals must adapt to the challenges posed by extreme weather and environmental factors, such as air quality.

Children's Hospital Los Angeles (CHLA), the largest pediatric provider of hospital care for children in California, is integrating environmental data with electronic health records to develop the necessary research and patient care foundations for the next generation. As a first step, the multidisciplinary team at CHLA and University of Southern California's (USC) Spatial Sciences Institute is integrating unique air quality data from award-winning Plume Labs by AccuWeather with patient data across CHLA.

Air quality is recognized as one of the most significant risks to health, with children more vulnerable than adults. Reducing air pollution levels can help reduce the burden from many acute and chronic respiratory diseases, including asthma.¹⁹

"By understanding the disparity and magnitude of exposure to poor air quality and subsequently identifying patients most at risk, we can unlock the ability for healthcare professionals and systems to implement targeted, evidence-based strategies to mitigate the negative impact of environmental exposures on health," shares Dr. Jonathan M. Tan, a pediatric anesthesiologist and Vice Chair of Analytics and Clinical Effectiveness at Children's Hospital Los Angeles.

Dr. Tan and his team from CHLA and USC partnered with AccuWeather's atmosphere and data science experts to reimagine what the future of pediatric health and healthcare delivery looks like when environmental data is incorporated into their hospital, research, practice, and advocacy efforts.

The partnership allows the research team to:

- 1. Integrate AccuWeather's high-resolution data on air quality and other environmental determinants of health with electronic health records.
- 2. Use the power of data and analytics to answer the fundamental question: "What is the outdoor air quality exposure for all of our children who receive care at our hospital?"
- 3. Unlock the ability to study the impact of extreme weather and environmental exposures for children across the United States. The team from CHLA and USC, together with AccuWeather are now taking the next steps to expand the scope of research to other leading children's hospitals.

"We've made remarkable strides at CHLA, integrating environmental determinants of health into our patient records for research," says Dr. Tan. "For the first time, we can see how environmental exposures affect children across an entire pediatric health system, allowing us to identify disparities and opportunities to intervene and reduce risks."

But this is just the beginning. To build a healthcare system ready to tackle the environmental and climate challenges facing today's children, research efforts like this one need to expand to reach more patients and health systems with more data.

AAFA applauds these research efforts by the teams at CHLA, USC, and AccuWeather.

"We are excited to expand this research to children's hospitals nationwide," Dr. Tan shares. "The future is bright, and we're just getting started!"



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RESEARCH HIGHLIGHT: Impact of Wildfire Smoke Waves on Asthma Emergencies in Children

Wildfires are becoming more common, more intense, and more widespread due to climate change and land use changes. Wildfire smoke—an asthma trigger—contributes to air pollution in many communities across the United States and is directly linked to poor health impacts.

Wildfire smoke is a complex mixture of harmful gases and small particulate matter known as PM2.5.²⁰ Exposure to PM2.5 is associated with increased risk of respiratory disease. The small particles can get deep into the lungs and cause injury and inflammation to lung tissue.

California often experiences the most wildfires and acres burned of any state. The most destructive wildfire in the state was in Northern California's Butte County in 2018. Smoke waves from this fire affected the San Francisco Bay Area and surrounding counties.

Researchers at Komodo Health set out to examine the impact of wildfire-associated air pollution on pediatric asthma. Their analysis included approximately 1.6 million children with asthma living in areas affected by the Butte wildfire smoke waves. Using Komodo's Healthcare MapTM, which tracks the healthcare journeys of more than 330 million patients in the U.S., researchers looked at asthma-related ED visits and asthma exacerbations during the 14-day wildfire smoke-wave period in 2018 compared to data from a 14-day period when no wildfires and associated elevations in PM2.5 were observed.

The study found that among children in areas impacted by the Butte wildfire:²¹

- Pediatric asthma exacerbations increased 76% during the smoke wave
- Asthma-related ED visits increased 27% during the smoke wave
- Risk of asthma exacerbation was highest in the Hispanic/Latino population
- Children living in regions with less home ownership and education had a 51% and 45% greater risk of asthma-related ED visits, respectively
- Children residing in regions with the highest poverty levels had a 38% greater risk of pediatric asthma-related ED visits

The study presents real-world evidence of the effects of wildfire smoke on pediatric asthma emergencies. It also highlights how socioeconomic factors-such as education, poverty, and home ownership—are associated with negative impacts of wildfire-associated air pollution.

Working together, stakeholders in these communities can mitigate adverse outcomes associated with exposure to air pollution from wildfire smoke. This is critical as the challenges posed by climate change and extreme weather continue to impact health, particularly among children with asthma.





Risk Factor: Poor Indoor Air Quality

Indoor air quality is just as important as outdoor air quality. We spend about 90% of our time indoors, whether at school, home, or in the workplace.²²

Indoor air can be up to 5 times more polluted than outdoor air. Buildings can trap harmful air pollution and other asthma triggers inside. Reducing asthma triggers in homes, schools, and workplaces is an important part of asthma management.

The following can negatively affect indoor air quality:

- Allergens, such as dust mites, animal dander, cockroaches, and mold
- Scents and fragrances from candles, scent diffusers, cleaning products, and personal hygiene products
- Chemicals and volatile organic compounds (VOCs) from building materials, cleaning products, and new furniture
- Burning fuels and wood (from cooking food or heating the indoor space)
- Emissions from vehicles, gas-powered generators, and other machinery
- Outdoor air pollution that enters the building (like from wildfire smoke)
- · High levels of humidity that encourage mold growth and dust mites

Due to limited data on the MSA level, AAFA's Asthma Capitals report does not rank cities based on indoor air quality (IAQ) or housing quality as a risk factor for asthma. But this is a critical area to address in housing policy, building maintenance, school environmental policies, and workplace accommodations.

Controlling Asthma Triggers and Allergens

Asthma management involves more than just taking medicine. People with asthma also need to reduce exposure to asthma triggers like air pollution, animal dander, pollen, dust mites, or mold.

There are ways to improve indoor air quality and reduce exposure to allergens and airway irritants. Many products make claims, such as being "hypoallergenic." But there are no federal regulations on these claims. To improve indoor environments for people with asthma and allergies, AAFA and Allergy Standards Limited developed strict standards and certify only the products that meet all the standards.

Look for the CERTIFIED asthma & allergy friendly® mark to confirm which products meet the standards to reduce exposure to allergens and improve air quality. Visit aafa.org/certified to search for CERTIFIED products and learn more about the asthma & allergy friendly® Certification Program.









Healthy Buildings for People with Asthma and Allergies

AAFA supports policies that promote healthy environments for people with asthma and allergies in various settings, including homes, housing, schools, child care centers, and workplaces.

Healthy Homes and Housing: There are many factors that can affect a home's health. Mold from a leaky roof or lead from old paint are some examples. For people with asthma, triggers and allergens in the home (such as dust, pests, and mold) can cause asthma and allergy symptoms. AAFA offers various resources to help improve indoor air quality (IAQ) in the home. Homeowners and rental tenants can use AAFA's Healthier Home Checklist to identify areas of their living spaces that may be contributing to asthma. It can be expensive to remediate an entire home, so AAFA recommends focusing on the areas where the person with asthma spends most of their time. This is usually the bedroom or sleeping areas.



Families living in low-income housing are more likely to be exposed to harmful asthma triggers and are at a greater risk of having severe asthma. These families often don't have the resources to address health issues in the home. AAFA supports reimbursement for preventative services and home assessments that provide asthma education for people with severe asthma.

AAFA is a member of several coalitions that also support improving housing on a national and community level, including the National Safe and Healthy Housing Coalition (NSHHC), DC Healthy Housing Collaborative (DCHHS), and California Asthma Financing Workgroup.

Healthy Schools and Child Care Centers: Clean air in every school should be a national priority for all K-12 schools and child care facilities. Improving IAQ in schools is especially important. Since children spend much of their time in the school environment, school IAQ can significantly influence their respiratory health. Research links key environmental factors to health outcomes and students' ability to perform. Improvements in school environmental quality can enhance academic performance, as well as teacher and staff productivity and retention. Poor indoor air quality is a particular health concern for those with asthma and allergies because indoor triggers increase the risks of severe asthma attacks and allergic reactions.¹⁹ Nearly 1 in 13 school-aged children have asthma, which is the leading cause of school absenteeism due to chronic illness.

Factors that contribute to poor indoor air quality in schools include:

- Exposure to indoor environmental allergens (such as dust mites, pests, and molds)²³
- Poor Ventilation and HVAC Systems
- Aging Buildings
- Schools Located Near Sources of Pollution





Risk Factor: Pollen Allergy

In the U.S., about 1 in 4 adults and 1 in 5 children have seasonal allergies such as pollen allergy.²⁴ That number could rise in the coming years due to climate change.²⁵ Many people have been experiencing worsening pollen allergy symptoms over the years.

Pollen is a common allergen that can cause allergic asthma (asthma triggered by allergens). Allergic asthma is most common in early childhood and steadily decreases through adulthood.

Pollen allergy seasons start earlier and end later in the year than they did previously. Research shows pollen seasons now start 20 days earlier and last 10 days longer, compared to 30 years ago.26,27

With warmer, longer seasons, allergycausing plants can move into new areas. Ragweed, for example, is migrating northward due to climate change.28

Warmer temperatures and increased levels of CO₂ lead to longer growing seasons that change flowering time and increase pollen. Higher concentrations of pollen are linked to increased CO₂ levels. This is often worse in urban areas. One study on ragweed pollen found that it could be 7 times higher in a city that averaged 3.6 F warmer and had 30% more CO₂ than the city's rural surrounding area.



Pollen Counting

Pollen reports are valuable tools in helping people manage their seasonal allergies. But not all reports are equal. Some reports are pollen counts and some are pollen forecasts. Pollen counts are taken from samples of pollen at monitoring sites (using pollen counters or sensors) and are based on actual data. Pollen forecasts are predictions of expected pollen counts based on historical data. While pollen forecasts can be helpful, pollen counts are more accurate. Most pollen counting sites use manual systems, where pollen is collected and placed on a microscopic slide and then counted by hand.

More recently, automated pollen sensors are available for capturing pollen data. Automated sensors-such as the APS400 from Pollen Sense-may reach areas manual counting cannot. Though this is a relatively new technology, pollen sensors continue to improve. There are several ways automated sensors can work, including using digital images or electric signals.²⁹ Automated pollen counting allows pollen information to be captured in a reliable and timely manner. They can produce hourly counts instead of daily counts.³⁰ Automated sensors also help remove some of the challenges that come with manual counting, like differences between counters, inaccurate samples caused by changes in airflow, and uncertainty with low pollen concentrations.³¹



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Risk Factor: Smoking Cigarettes, Cigars, and Vapes

Tobacco smoke and e-cigarette aerosol can be especially harmful to people who have asthma.

About 1 in 5 adults with asthma smoke tobacco products.³² Children who live with smokers have more frequent asthma attacks. More than 40% of children who go to the emergency department for asthma live with smokers.33

According to the CDC, smoking is the leading cause of preventable death in the U.S.³⁴ Smoking is not only harmful to the person doing the smoking but also to people nearby who inhale secondhand smoke or come into contact with thirdhand smoke. People with asthma are at greater risk of harm from tobacco products. Many chemicals, gases, and small particles in secondhand and thirdhand smoke can irritate the lungs and airways, causing additional inflammation and swelling.

Secondhand smoke-also known as environmental tobacco smoke (ETS)-refers to smoke that is released in the air when a smoker exhales, as well as smoke released from a burning cigarette, cigar, or pipe. Secondhand aerosols are also released by electronic smoking devices (e-cigarettes, hookahs, vapes).

Thirdhand smoke is residue from tobacco smoke. When a nicotine product is smoked, chemicals in the smoke stick to surfaces and dust for months after the smoke is gone. The chemicals in the residue then react to other pollutants in the air, like ozone, to create harmful particles you can easily inhale or ingest.35

Tobacco smoke and aerosols (including secondhand and thirdhand smoke) are unhealthy for everyone. There is no safe level of exposure to secondhand or thirdhand smoke. But many non-smokers are exposed to ETS in public places, homes, vehicles, and workplaces.

These cities do the least to protect their residents and visitors from tobacco smoke and have fewer smoke-free laws[†], comparatively:

Metropolitan Area	Overall Asthma Capital National Ranking
Oklahoma City, OK	66
Tulsa, OK	82
Chattanooga, TN	46
Memphis, TN	15
Harrisburg, PA	14
Knoxville, TN	92
Nashville, TN	32
Virginia Beach, VA	31

Prohibiting smoking in indoor spaces protects nonsmokers (including children) from ETS. Many state and local jurisdictions have passed laws that ban smoking in some places. These smoke-free zones may include workplaces, restaurants, hotels, parks, public housing, and transit systems. Research your state or county to see what the laws are in your area.

†For each city included in the 2024 Asthma Capitals, AAFA obtained data on whether there was a 100% smoking ban for cars with minors, non-hospitality workplaces, restaurants, bars, and multi-unit housing.





Risk Factor: Lack of Access to Specialists

Successful asthma management requires coordination of care between the person with asthma and their health care team. In addition to a primary care doctor, a person with persistent asthma might need to be in the care of a specialist. Pulmonologists, allergists, and immunologists, for example, can provide specialized care for people with asthma and may have more experience treating patients with severe asthma or allergic asthma than a primary care physician.

Access to appropriate medical care is dependent upon different factors, including socioeconomic status, insurance status, and availability of specialists in nearby locations. The lack of availability of nearby asthma specialists may be associated with poor asthma outcomes.

Living in an area where there are fewer specialists can mean traveling long distances for care. This can be a burden on personal finances and time, especially when frequent trips are needed. And it may take months to get an appointment.

Fewest Specialists Ranking	Metropolitan Area	Overall Asthma Capital National Ranking
1	Poughkeepsie, NY	18
2	Ogden, UT	79
3	Lakeland, FL	7
4	Springfield, MA	4
5	McAllen, TX	63
6	Rochester, NY	2
7	Las Vegas, NV	38
8	Provo, UT	99
9	El Paso, TX	68
10	Spokane, WA	16

These cities have the fewest asthma specialists per asthma patient[†]:



†For each city included in the 2024 Asthma Capitals, AAFA obtained data on specialists per 10,000 asthma patients.

Find an Allergist

People managing asthma and allergies can find specialists in their area using the Find an Allergist tool from the American College of Allergy, Asthma & Immunology (ACAAI). The tool finds specialists by ZIP code and shows office locations and phone numbers. Use the Find an Allergist tool at **acaai.org/find-an-allergist**.





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Risk Indicator: Asthma Medicine Use

Both control medicines (sometimes called "controllers") and quick-relief medicines (sometimes called "rescue inhalers") may be necessary for optimal asthma management.

Quick-relief medicines help relieve asthma symptoms as they are happening. These medicines act fast to relax the constricting smooth muscles around the airways. This allows the airways to open up so air can flow through them.

Frequent use of a quick-relief medicine (like albuterol) may indicate a higher number of asthma episodes and lack of asthma control.

Quick-relief medicine use is highest in these cities[†]:

Asthma Quick-Relief Medicine Use Ranking	Metropolitan Area	Overall Asthma Capital National Ranking
1	Toledo, OH	41
2	Springfield, MA	4
3	Detroit, MI	3
4	Louisville, KY	40
5	Columbus, OH	20
6	Providence, RI	10
7	Greenville, SC	13
8	Boston, MA	74
9	Indianapolis, IN	61
10	Atlanta, GA	43

†For each city included in the 2024 Asthma Capitals, AAFA obtained the total number of quick-relief medicine prescriptions for the respective census-designated metropolitan statistical area, or MSA, from 2023. Analysis included estimating the prescription rate per patient prevalence. **Control, or controller, medicines** help prevent and control asthma symptoms. There are several kinds of asthma control medicines, including inhaled corticosteroids (ICS) and biologics. Asthma control medicines are prescribed for persistent cases of asthma.

A high number of these prescriptions may indicate that a city's residents have more severe or uncontrolled cases of asthma.

Asthma control medicine use is highest in these cities[†]:

Asthma Control Medicine Use Ranking	Metropolitan Area	Overall Asthma Capital National Ranking
1	Toledo, OH	41
2	Ogden, UT	79
3	Louisville, KY	40
4	Indianapolis, IN	61
5	Jackson, MS	48
6	Pittsburgh, PA	45
7	Harrisburg, PA	14
8	Greenville, SC	13
9	Detroit, MI	3
10	New Haven, CT	83

†For each city included in the 2024 Asthma Capitals, AAFA obtained the total number of controller medicine prescriptions for the respective census-designated metropolitan statistical area, or MSA, from 2023. Analyses included estimating the prescription rate per patient prevalence.

Biologics are a newer type of controller medicine used to treat moderate to severe asthma. They can be a treatment option for people whose asthma remains uncontrolled even on high doses of other control medicines. Currently, there are 6 asthma biologics approved by the FDA, including biologics for severe asthma, eosinophilic asthma, allergic asthma, OCS-dependent asthma, and asthma with no phenotype (e.g. eosinophilic or allergic).





SPOTLIGHT: Access to Asthma Medicines and Care

People with asthma need access to comprehensive, affordable health care that covers all necessary medications without causing financial hardship. This access is critical for asthma management and overall health, ensuring that individuals get treatments they need at prices that are manageable and fair. Access to care supports better health outcomes and empowers individuals to lead active, fulfilling lives without the burden of high medical costs.

AAFA advocates for:

- Access to health coverage with meaningful drug coverage
- Reducing barriers caused by "utilization management"
- Transparent and affordable drug pricing

Access to health coverage with meaningful drug coverage

AAFA advocates for access to comprehensive health insurance coverage regardless of pre-existing conditions, socioeconomic status, gender, age, race, or ethnicity. Comprehensive coverage relies on laws and policies that protect access in the private health insurance market, as well as in Medicaid, Medicare and other public programs.

AAFA supports policies that:

- Reduce barriers to access to care, including maintaining the cost of prescription drugs outside a plan deductible
- Minimize cost sharing for patients; for example, when feasible, AAFA supports the use of low copayments instead of coinsurance
- Enforce nondiscrimination requirements that prevent plans from "discriminatory tiering," which refers to placing most or all drugs for certain conditions in high-cost tiers
- Prohibit "copay accumulators" that limit how much patients can benefit from manufacturer assistance programs (When plans apply a "copay accumulator," they disregard the amount of any coupon used when calculating a member's deductible. This makes it harder for patients to ever reach the deductible, keeping out-of-pocket costs high.)

Within the Medicare program, AAFA supports a patient-centric implementation of the \$2,000 out-of-pocket maximum in the Part D benefit. AAFA also supports policies that would reduce financial liability for Part D enrollees, including a price ceiling for each Part D drug and requiring more information about drug pricing and alternatives in Part D Explanation of Benefits (EOBs). In addition, AAFA opposes restrictive medication utilization management policies in Part D that pose unwarranted barriers to patient access to needed medications.

Medicare Prescription Payment Plan

Beginning in 2025, the Medicare Prescription Payment Plan, part of the Inflation Reduction Act, will allow Medicare Part D beneficiaries to spread their out-of-pocket prescription drug costs over the year in monthly payments instead of all at once at the pharmacy. This aims to reduce the financial burden on beneficiaries by offering predictable monthly payments and an annual out-of-pocket spending cap of \$2,000. Beneficiaries will be able to opt into the payment plan during their coverage year and adjust payments based on changes in their drug costs. For more information, visit **CMS.gov**.



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Reducing barriers caused by "utilization management"

AAFA opposes the use of utilization management (UM) techniques that hinder medically appropriate access to medication for asthma. UM is a broad term that refers to tools an insurer might use to help ensure access to proper care and required services while controlling costs.³⁶

In 2020, the U.S. was estimated to spend over \$358 billion on prescription drugs. Given this, and projections that expenditures will continue to increase, issuers and pharmacy benefit managers (PBMs) are increasingly using UM techniques to manage costs.³⁷ Today, more than 94 percent. of plans report using UM to manage costs and access.³⁸ While UM interventions have seen some cost-savings and increased promotion of evidence-based care, UM tools may increase administrative burden for patients and providers, create barriers to care and limit patient choice.^{39,40} Three of the most common UM tools are:

- Prior Authorization, sometimes called precertification or prior approval, is the most common form of utilization management. Prior authorization prospectively seeks to control the utilization of items or services, including prescription drugs, by requiring approval of a medically necessary service or treatment from the patient's health plan.
- Step therapy, also known as "fail first" protocols, is a technique used by insurance payors in which patients are required to try - and fail - one medication or regimen before getting approval to try another. The approach is typically used to reduce plan costs by steering patients toward less expensive treatment. A typical approach is to require patients to first demonstrate over a specific time (e.g. 30 days) that less expensive, often generic, therapies are clinically ineffective, prior to authorizing coverage for the more expensive prescribed treatments.^{41,42} Though providers are usually able to file successful appeals and exception forms for patients, not every issuer allows for such an appeal.43
- Mid-year formulary changes generally occur when new prescription drugs come to market and a health plan and/or pharmacy benefit manager (PBM) change their preferred drug and/or remove coverage of the existing treatment from their formulary altogether.⁴⁴ Issuers and PBMs argue these changes are necessary to allow patients access to the most innovative and effective treatments.⁴⁵ For patients, however, mid-year formulary changes may result in non-medical switching (NMS). NMS happens when a patient and provider are forced to change the prescribed treatment solely for financial considerations placed by the health plan.⁴⁶

Common Utilization Management (UM) Tools		
UM is a broad term that refers to tools an insurer might use to help ensure access to proper care and required services while controlling costs		
Prior Authorization	A process that requires approval from the health plan (insurance company) before a service or prescription can be provided.	
Step Therapy	A process that requires patients to "fail" on less expensive (often generic) drugs before getting access to newer, more expensive drugs.	
Mid-year Formulary Changes	Occurs when health plans or pharmacy benefit managers change their preferred drug(s) and/or remove coverage of existing treatments when new drugs come to market.	





Members of AAFA's patient community need medications to treat asthma and related conditions. Often, patients have to work closely under the guidance of their providers to identify the right medication for them. AAFA strongly opposes UM techniques, in public or private insurance, that hinder access to the safest and most effective medication for any given individual, as determined by the patient and prescriber.

Where UM policies are in place, AAFA supports the following principles:

- Protocols should be based on evidence-based treatment guidelines. Treatment should begin with the recognized standard of care under these guidelines, even if that treatment is not the least expensive.
- Patients currently using effective therapy must be permitted to maintain that treatment under an existing or new insurance policy even if the therapy is not the least expensive.
- Providers must be able to request a waiver of step therapy requirements for patients who tried a drug at an earlier date, including in a different plan year, to avoid having patients repeat a treatment known to be ineffective for them.
- There must be a simple and timely exceptions and appeals process to ensure rapid consideration of providers' documented reasons for recommending access to a drug otherwise subject to UM.
- Enrollees and providers should receive clear and timely information about any UM requirements and the exceptions and appeals process.

Transparent and affordable drug pricing

People with asthma may face large financial barriers to certain drugs. In AAFA's study of 804 adults with asthma, only 1 in 4 respondents always used their asthma treatments as prescribed.¹⁶ The top 3 reported reasons for not using treatments were related to cost: inability to afford treatment, treatment was too expensive, and lack of insurance coverage for the treatment. High out-of-pocket costs can impact adherence, threaten the health of people with asthma, and worsen disparities.

AAFA supports policies that reduce the cost burden of drugs for patients:

- Increase price transparency from pharmacy benefit managers (PBMs) and drug manufacturers.
- Include data on patient experience (such as quality of life, social impact, and caregiver impact) when evaluating the cost-effectiveness of drugs.

Within the context of Medicare drug pricing negotiation, AAFA supports policies that would help lower the list prices of drugs without stifling innovation. AAFA is concerned about policies that set arbitrary costs which could suppress innovation and potentially jeopardize access to new medicines.

AAFA Leads the Way to Lower Costs of Asthma Inhalers

AAFA is pushing to lower the costs of asthma medicines, including inhalers. We know the high cost of medicine can be a barrier to treatment. In 2024, several major asthma inhaler manufacturers-AstraZeneca, Boehringer Ingelheim, and GSK-announced \$35 a month caps on out-of-pocket costs. The price cap will apply to people with commercial/private insurance or no insurance.

AAFA continues to raise the voice of the patient community and draw attention to the ways America's complex drug pricing ecosystem makes asthma medications more expensive for people who need them most. Drug manufacturers, pharmacy benefit managers (PBMs), insurers, employers, and the government must work together to improve affordability and access.



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Health Equity

The Asthma Capitals report acknowledges that where a person lives can significantly impact their health. Social, economic, and environmental disadvantages play a role in determining asthma outcomes. Many of the top Asthma Capitals are also facing major challenges and inequities that lead to health disparities.

In 2020, AAFA published the Asthma Disparities in America report, which examines serious gaps in asthma rates, care and outcomes. The report also provides a roadmap and strategies to address racial and ethnic disparities in asthma.4

In 2022, AAFA launched its Health Equity Advancement and Leadership (HEAL) program to address findings from the report and reduce asthma deaths and illness among high-risk populations. The HEAL program employs a dual strategy, combining AAFA national leadership with locally tailored community-driven initiatives. HEAL reinforces AAFA's commitment to drastically reduce health disparities in communities that bear the heaviest burden of asthma.

Through the HEAL program, AAFA provides funding and resources to local pilot programs tailored to at-risk populations most impacted by asthma. During the initial launch of the HEAL program in 2022, AAFA announced support for community-based programs in Detroit, St. Louis, Los Angeles, and Chicago. In 2023 and 2024, AAFA expanded the HEAL program by supporting additional programs in New York City, Alabama, Allentown, and Saginaw.



AAFA's 2022-2024 community-based HEAL interventions for asthma:

Though each program site is conducting different interventions, the programs feature similar components that are proven to improve asthma outcomes and health:

- Care Coordination and Support
- Asthma Self-Managment Education
- Environmental Home Assessment and Tools
- General Health and Wellness
- Other Tools and Resource Connections





The Allentown (#1 Asthma Capital) program, in partnership with the Health Promotion Council of Southeastern Pennsylvania, is developing a community-based asthma management program and outreach campaign focused on older adults with asthma. The project will expand current programs for older adults living with chronic health conditions, including asthma, and build new referral pipelines with local partners. (see page 33)

The **Detroit (#3 Asthma Capital)** program, in partnership with the AAFA Michigan Chapter, provides a holistic asthma management intervention. Participants are provided with comprehensive self-management asthma education, connected with an asthma specialist and a nutritionist, and receive a virtual home environmental assessment from a certified community health worker. Participants are also provided with a local farmers market food box, a membership to a local YMCA, and asthma-friendly products for their homes.

The **Saginaw** program, in partnership with the AAFA Michigan Chapter, will build upon the positive outcomes shown for residents in Detroit. The AAFA Michigan Chapter will offer their holistic asthma management intervention to Saginaw County residents.

The St. Louis (#17 Asthma Capital) program, in partnership with the AAFA St. Louis Chapter, provides an intervention for adults ages 50+ with asthma. The program provides group asthma management education in virtual and in-person settings. Home visits are also provided to support asthma and allergy trigger remediation.

The New York City (#19 Asthma Capital) program, in partnership with AlRnyc, provides a unique asthma care program to help the Hispanic population in the Bronx and surrounding areas. In several high-poverty neighborhoods of the South Bronx-where the majority of residents are Hispanic or Black-rates of asthma deaths and burden are consistently higher than the rest of New York City.

The Los Angeles (#49 Asthma Capital) program, in partnership with Breathe Southern California, provides an asthma management and education program that includes 3 visits with a health educator. The home visits include an in-home assessment for environmental asthma triggers and resources to reduce barriers to care. The focus of the program is on underserved communities of Southeast Los Angeles County that bear some of the heaviest burden of asthma due to their low socioeconomic status, proximity to high-polluting industrial facilities, and the presence of several major freeways.

The Chicago (#53 Asthma Capital) program, in partnership with the American Lung Association, provides a virtual home assessment program for individuals with asthma. The home visit includes asthma management education and offers support to help households reduce their exposure to asthma triggers.

The Alabama program, in partnership with Virtual Young Teen Asthma & Wellness Camp and the Alabama Asthma Coalition, is expanding an existing virtual model to include asthma management home visits and provide asthma health education. The program will build a community health worker network to address the rural health disparity needs through collaborations with schools, local and state departments of health, and other state-based organizations and partners.

AAFA's Health Equity Advancement and Leadership (HEAL) program sites listed above are supported by generous contributions from the American College of Allergy, Asthma, & Immunology (ACAAI), Amgen, AstraZeneca, Genentech, Novartis, Pegasus Home Fashions, Rabbit Air, Renegade Brands, Sanofi, Regeneron, and Viatris.



Asthma and Allergy oundation of America



30 asthmacapitals.com AsthmaCapitals ©2024 Asthma and Allergy Foundation of America Across all HEAL sites, program participants complete a voluntary self-reported survey at baseline, 6-, 12-, and 24-months post-intervention. The survey collects data including:

- Participant demographics
- Asthma severity and control (using the AIRQ[®] tool)
- Asthma exacerbations and healthcare utilization
- Asthma-related quality of life
- Experience with asthma treatments
- Understanding of the participant's healthcare team
- Perceived provider bias
- Asthma knowledge and confidence
- Comorbid conditions
- Social determinants of health

Though the HEAL interventions are ongoing, enrollment and evaluation data to date show that HEAL is reaching and serving people experiencing a disproportionate burden of asthma. Many participants in the programs report having competing priorities and needs relating to their health. Food security, the risk of losing utilities, and the lack of reliable transportation are a few of the competing priorities households are facing that can conflict with their asthma management. Additionally, exposure to outdoor and indoor pollution continues to be a barrier to asthma management.

Among all participants enrolled in the HEAL program to date*:			
Demographics			
52% identify as Black or African American and 25% identify as Hispanic or Latino	44% are covered through Medicaid and 29% through Medicare	44% report an annual household income of under \$25,000	
Exposure to Outdoor Pollution	Exposure to Indoor Triggers	Competing Needs and Priorities	
77% say they live within 5 miles of an area with heavy traffic	• 28% say they are exposed to mold in their homes	40% say they have worried food would run out in the past 12 months	
24% live within 5 miles of a manufacturing plant	22% say they are exposed to pests such as mice, ants, or bugs	24% say their utilities have been threatened to be shut off in the past 12 months	
14% live within 5 miles of gas or oil refinery	18% say they have been exposed to smoking in the home in the past 7 days	23% say lack of reliable transportation has kept them from medical appointments, work, or from getting necessities	

*Data as of September 5, 2024; n=170 participants who have completed the baseline survey





Data from 6-month follow-up evaluations show that the HEAL program continues to meet its goals of improving asthma care and outcomes for participants.



*Data as of September 5, 2024; n=73 participants who completed both the baseline and 6-month surveys

From the time she was a child, La Fondria, PhD—a St. Louis (#17 Asthma Capital) resident—recalls having trouble breathing. Her asthma symptoms were often brought on by strong scents or cigarette smoke.

La Fondria spoke with her doctors many times about her trouble breathing. After much self-advocacy, she was diagnosed with asthma and given a quick-relief inhaler. At first, that seemed to be enough. She experienced better breathing and could manage her symptoms.

While La Fondria felt she had her asthma under control, she often wondered if there was more to asthma management than using just a quick-relief inhaler. La Fondria wanted to learn more, so she joined the HEAL program in St. Louis.

Through a connection with HEAL, La Fondria found a community of people living with asthma. And she learned new ways to manage her asthma. She also worked with a health care provider to develop an Asthma Action Plan.

Now, La Fondria knows she has all the tools she needs to manage her asthma.

"I'm so glad I kept looking for answers," La Fondria said. "And I would encourage anyone to take advantage of a program like HEAL. My life was great before, but it's even better now that I have all the tools to manage my asthma."





SPOTLIGHT: Supporting a New Program in Allentown, the #1 Asthma Capital

Allentown, Pennsylvania, takes the top spot for the second year in a row. Allentown is the #1 Asthma Capital in 2024 due to higher-than-average asthma prevalence and emergency department (ED) visits. In fact, Allentown has the highest rate of asthma-related ED visits of all 100 cities analyzed.

AAFA is supporting the Allentown community with developing and launching the EASE Allentown: Empowering Asthma Self-Management and Education program. This project will be led by the Health Promotion Council of Southeastern Pennsylvania, Inc. (HPC), a subsidiary of Public Health Management Corporation, in collaboration with local partners. The goal is to develop a community-based asthma management program and outreach campaign focused on older adults with asthma. The project will expand current programs for older adults living with chronic health conditions, including asthma, and build new referral pipelines with local partners.

HPC has more than 35 years of experience in chronic disease prevention, education and management, focused on health equity and culturally responsive services to empower individuals to improve their health. HPC was recently awarded one of twenty grants nationwide to implement a Community Care Hub (CCH) model to address health-related social needs and expand reimbursement for evidence-based programs. In the long term, HPC aims to integrate and expand EASE into its services as part of its expansion.

"Allentown has been on AAFA's radar for some time as a promising community for closer collaboration," said Lynne G. Bosma, AAFA's Health Equity and Outreach Program Manager. "HPC's innovative and collaborative approach makes them an ideal partner as we extend the reach of AAFA's Health Equity Advancement and Leadership (HEAL) program. By working with local organizations like HPC, AAFA aims to help communities such as Allentown develop effective strategies to reduce health disparities."



Joani Schmeling, MPH, MCHES, the Training and Capacity Building Manager at HPC, leads the organization's chronic disease self-management education program. This program equips older adults with the knowledge and tools they need to effectively manage chronic conditions.

"We are deeply honored to receive this grant from AAFA, as it empowers us to make a lasting impact in Allentown, the community with one of the highest rates of asthma in the country," said Ayana Bradshaw, Executive Director of HPC. "This opportunity brings us one step closer to our mission of providing everyone with the tools and resources needed to effectively manage chronic diseases. Together, we can create a healthier future for all residents of Allentown."





Taking Action through Advocacy and Policy

Advocacy is a critical pillar of AAFA's mission to save lives and reduce the burden of disease for people with asthma, allergies, and related diseases. In previous years, AAFA has used our Asthma Capitals reports to educate public officials on the challenges of living with asthma. We have primarily shared the reports with Congress to help promote policy solutions to improve the health and safety of people with asthma. This year, AAFA is calling on our community to join us in these advocacy efforts-including at the state and local level.

This report outlines significant risk factors that impact asthma outcomes. There is no single policy solution to address the complex and structural issues the asthma community faces. AAFA therefore supports a "health in all policies" approach that recognizes the health implications of policy decisions in all sectors-including health, education, environment, labor, housing, social services, and city planning.

Key Issues	Examples of Policy Strategies
Access to health care	Expand health insurance coverage. Reduce drug costs for patients. Reduce financial and insurance-related barriers to medically appropriate care and treatments. Provide free vaccinations.
Physical environment	Strengthen clean air policies, reduce transportation-related emissions, restrict zoning of polluting sources, and transition to a clean energy economy. Support carbon reduction programs and other climate change mitigation strategies.
Healthy schools	Improve school building conditions and air quality in and around schools. Improve school nurse to student ratios to ensure students have support to effectively manage their asthma and allergies.
Healthy homes	Reduce the use of building materials that contribute to poor indoor air quality. Promote green-building principles. Support tenant's rights to remediation of health hazards in rental properties. Build climate-resilient homes.

Keys areas of advocacy to improve asthma outcomes include:

Your voice is critical to help build awareness in your community and to educate your elected officials who can lead change. On the following pages, we've included:

- Tips for identifying and contacting your state legislators (page 35)
- Tips for communicating and advocating effectively (page 37)
- Sample letter to your legislator (page 38)
- Sample Asthma Peak Week resolution for states (page 39)
- Sample Asthma and Allergy Awareness resolution for states (page 40)

Sign up to receive AAFA's Advocacy Action Alerts!

Would you like to help us advocate on behalf of people with asthma and allergies? Join our online community to receive Advocacy Action Alerts. Through the community, you'll also be able to use our support forums, get alerts about other news, learn about research opportunities, and more.







How to Advocate for People with Asthma to Lawmakers

Find Your Legislators (Lawmakers)

If you live in one of the 50 states, you have one U.S. senator and one U.S. representative that represent you in the U.S. Congress. You also have legislators (state senators and representatives or assembly members) who represent your local district in your state's government. You can find your senator and representative by going to openstates.org and entering your home address in the search bar. The results will include both your state and federal legislators. The state results will say either "upper" or "lower" chamber. Your state senator is a member of the upper chamber, and your state representative is a member of the lower chamber.

If you live in the District of Columbia or a U.S. territory, you can still use openstates.org to find your local representatives. You also have non-voting members of Congress at the federal level.

Call Your Legislator

Calling elected officials is an extremely easy and effective way to raise important issues. First, you will want to introduce yourself and let the staff member know that you are a constituent (someone who lives in their district). Do not be surprised if they ask for your zip code. This is because constituent concerns are prioritized. You will then want to briefly raise your concern or request for your legislator using our communication tips on page 37.

You may also ask to speak to the appropriate legislative assistant based on the topic. Here is a brief example: "Hi, my name is Jane Doe from Virginia, zip code 22202. As a mother of child with asthma, I am calling to encourage the senator to support legislation to combat environmental injustice in our community and to clean up polluting sources near our schools. Is there a legislative assistant who covers these types of issues that I could speak with?" You can also ask to talk about topics like access to medicines, health insurance, or funding for local asthma programs.

Write to Your Legislators

Writing to legislators is another advocacy tool you can use whether by physical mail or by email. Again, you will want to identify yourself as a constituent and make your request for support clear and concise at the beginning of the letter or email. You should then provide any relevant background information and personal stories related to the request. We have provided a sample letter in support of asthma policies on page 38, as well as sample resolutions for Asthma Peak Week (page 39) and Asthma and Allergy Awareness Month (page 40) that you can share with your legislators.

Request a Meeting with Legislators

The easiest way to request a meeting is by phone or email. Legislators all have public email addresses and/or contact forms on their websites. Using the tips above, contact your lawmaker's office and request a meeting. You may need to be flexible on timing but be persistent. You will most likely meet with a member of staff and not the lawmaker themself.

Once a virtual or in-person meeting is scheduled, be prepared, on time, and concise. Review communication tips on page 37 prior to a meeting and be prepared with any additional background "leave-behind" materials, such as a copy of the Asthma Capitals report. It is also important to follow-up with a thank you note or email after the meeting.





Addressing Legislators

When addressing legislators in writing or in conversation, refer to the chart below:

	State Senator	State Representative
Formal Address	The Honorable (Full Name)	The Honorable (Full Name)
	(Name of State Legislature Upper Chamber)	(Name of State Legislature Lower Chamber)
	(Address of State Legislature)	(Address of State Legislature)
Salutation		Dear "Mr./Ms./Mrs." or
	Dear Senator (Last Name)	"Representative" or
		"Assemblyman, Assemblywoman, Assemblymember" or
		"Delegate" (Last Name)
Conversation Senator (La		"Mr./Ms./Mrs." or
	Senator (Last Name)	"Representative" or
		"Assemblyman, Assemblywoman, Assemblymember" or
		"Delegate" (Last Name)

	United States Senator	United States Representative
Formal Address	The Honorable (Full Name) United States Senate Washington, DC 20510	The Honorable (Full Name) United States House of Representatives Washington, DC 20515
Salutation	Dear Senator (Last Name)	Dear "Mr./Ms./Mrs." or "Representative" (Last Name)
Conversation	Senator (Last Name)	"Congressman, Congresswoman" or "Representative" (Last Name)

Note: The names of upper and lower chambers of state legislatures vary by state. You can find information on your state legislatures by clicking on your state at congress.gov/state-legislature-websites.





Tips for Communicating with Legislators and Their Staff

Legislators serve many constituents and address a wide range of policy issues. Here are some important points to keep in mind when communicating with legislators.

Remember that Legislators and Their Staff are Human Beings

- Conversations should not be argumentative or confrontational.
- In advocacy, respectful relationships build the foundation for change.

2. Share Personal Stories

- Personal stories are extremely powerful and are often remembered.
- Keep stories very brief (under two minutes) and tied to legislation and policy issues.

3. Identify Yourself as a Constituent

- Let your legislator know that you live in their district and identify yourself as a constituent.
- Legislators are more likely to focus on issues pertaining to their district and constituents.

4. Increase Number of Communications

- Advocates should craft key messages and consider asking friends and family to help in contacting legislators on important issues.
- The more communications a legislator receives about an issue the more likely they will act.

5. Repeat Your Main Points

The frequency legislators hear about an issue plays a role in whether they favor a cause.

6. Keep Materials Brief, Straightforward, and Simple

- When sharing printed materials with a legislator, try to keep it to a one-page, bulleted fact sheet that reinforces the key points on the issue.
- Lengthy materials are often not read.

7. Clearly Communicate What You are Asking for

- Be specific on the action you want taken, such as support for a bill or policy. For example, you can say "I'm asking you to support Bill number XX because it will help improve health outcomes for people in our community."
- Stay informed on where legislators stand on issues and actions they have taken.

8. Follow Up

Thank legislators when they support the issue or take a public stance on it.

9. Share Media Coverage

• If a media story covers an issue you have previously raised with the legislator, share a copy of the article and remind them about the previous communication on the topic.

10. Take Notes

Keep a record of your communications to maintain dialogues and foster relationships.





Sample Letter to Your Legislator

[Date]

Dear [Legislator Title and Name]:

On behalf of the Asthma and Allergy Foundation of America (AAFA) and as your constituent, I am writing to urge you to sponsor a resolution designating [Asthma Peak Week or Asthma and Allergy Awareness Month] in [your state's name]. Recognizing [Asthma Peak Week or Asthma and Allergy Awareness Month] helps to raise public awareness about the challenges faced by people with asthma and promote efforts to improve asthma care in **[your state's name]**. I have included a sample resolution with this letter for your consideration.

Nearly 28 million people in the United States have asthma and it is one of the most common chronic diseases in children. Asthma causes your airways to become inflamed, making it hard to breathe. There is no cure for asthma. Over 3,500 people in the U.S. die each year from asthmathat's about 10 people a day. These are preventable deaths.

Every year, AAFA releases its Asthma Capitals Report (asthmacapitals.com) which ranks the largest 100 U.S. metropolitan cities by how challenging they are to live in with asthma. This year, [your city name] ranked as the [your city's ranking] most challenging city to live with asthma in the contiguous United States. This ranking is based on asthma prevalence, asthma-related emergency department visits, and asthma-related deaths. The report also examines risk factors that can influence asthma outcomes: poverty, lack of health insurance, air pollution, poor indoor air quality, pollen, medicine use, smoking, and access to asthma specialists.

Additionally, the burden of asthma falls disproportionately on the Black, Hispanic, and Indigenous populations in the United States. These groups have disproportionately high rates of poor asthma outcomes, including hospitalizations and deaths. In fact, as documented in AAFA's 2020 Asthma Disparities in America Report (aafa.org/asthmadisparities), Black Americans are 3 times more likely to die from asthma than White Americans and 5 times more likely to be treated in an emergency room. Black women also have the highest death rates from asthma versus any other group.

To address the complex social and structural determinants of health that impact asthma outcomes, AAFA's Asthma Disparities in America Report suggests 19 public policy solutions. These policy strategies aim to improve access to affordable, quality health care; promote economic stability; ensure safe learning environments for children; and address environmental harms that impact people with asthma. In addition to sponsoring the **[Asthma Peak Week or Asthma and** Allergy Awareness Month] resolution, I ask you to consider championing legislation drawn from these recommendations.

Thank you for prioritizing the health of your constituents and I look forward to seeing improvements in asthma care and outcomes in our community.

Sincerely,

[your name] [your home address, optional]





Sample Asthma Peak Week Resolution for States

September is a peak month for people with asthma and allergies, especially children. September brings a number of asthma triggers that cause more asthma attacks, ED visits, and hospital stays in this month than any other during the year. This makes it the "Asthma Peak Month." The third week of September is "Asthma Peak Week," when asthma episodes typically hit their highest point of the year.

The resolution below can be adapted for your state. If you'd like to work on an Asthma Peak Week resolution for 2025, contact advocacy@aafa.org.

A resolution to declare September 14-20, 2025, as Asthma Peak Week in the state of [state name].

Whereas, according to the Centers for Disease Control, nearly 28 million people in the United States have asthma, a long-term disease that causes a person's airways to become swollen and inflamed, making it difficult to breathe;

Whereas, **[asthma prevalence in state]** adults and children in **[state name]** have asthma;

Whereas, the burden of asthma in the United States falls disproportionately on people with low-income, senior adults, and Black, Hispanic and American Indian/Alaska Native people;

Whereas, asthma is responsible for nearly five million doctors' office visits and 1.5 million emergency department visits each year, additionally, ten people in the United States die each day from asthma;

Whereas, the annual economic costs of asthma include \$3 billion as a result of missed days of work, \$29 billion due to asthma-related mortality, and \$50 billion in medical costs;

Whereas, many people lead healthy lives with asthma if the disease is well-managed, including with a treatment plan developed with a medical professional; and

Whereas, every September, asthma hospital visits rise, with the third week of the month being the worst due to fall allergies caused by ragweed and mold and exposure to respiratory illnesses and other asthma triggers as children return to school. This week is often referred to as "Asthma Peak Week."

Therefore, be it resolved, the week of September 14th through the 20th, 2025 is hereby designated "Asthma Peak Week" in the state of **[state name]** for the purposes of raising awareness of the impact of asthma and calling attention to treatment and management options for this long-term disease.





Sample Asthma and Allergy Awareness Month Resolution for States

Each year, AAFA asks the President to declare May to be National Asthma and Allergy Awareness Month. AAFA can also support resolutions for Asthma and Allergy Awareness Month in your state.

The resolution below can be adapted for your state. If you'd like to work on an Asthma and Allergy Awareness resolution for 2025, contact advocacy@aafa.org.

A resolution to declare May 2025 as Asthma and Allergy Awareness Month in the state of [state name].

Whereas, Approximately 4.5 million children in the United States currently have asthma; and

Whereas, Nearly 28 million people in the United States, have asthma and the numbers are increasing each year; and

Whereas, [asthma prevalence in state] adults and children in [state name] have asthma;

Whereas, Asthma is one of the most common noncommunicable diseases among children; and

Whereas, Nearly 1 million individuals per year visit emergency departments because of asthma's effects: and

Whereas, Asthma is a leading cause of hospitalizations and school absences due to a chronic disease among children; and

Whereas, The total economic cost of asthma in the United States was \$81,900,000,000 per year from 2008 to 2013; and

Whereas, Black, Hispanic, and Indigenous individuals in the United States face the highest burden of asthma; and

Whereas, Asthma is a manageable disease that claims the lives of over 3,500 Americans each year, including [asthma deaths in state] in [state name]; and

Whereas, People with asthma and food allergies need access to affordable health insurance and to the medications and devices they need at affordable prices; and

Whereas, Over 20 million people in the United States have food allergies, including about 4.3 million children; and

Whereas, Food allergy has increased among U.S. children over the past 20 years, with the greatest increase in Black children; and

Whereas, Children with food allergies are two to four times more likely to have asthma or other alleraic diseases; and

Whereas, May is an appropriate month to designate as Asthma and Allergy Awareness Month; now, therefore, be it

Therefore, be it resolved, the month of May 2025 is hereby declared Asthma and Allergy Awareness Month in the state of **[state name]**. We recognize residents who live with asthma and allergies and to be compassionate of those living with these conditions.





SPOTLIGHT: AAFA's Asthma Capitals Report in Action!

Each year, AAFA publishes the Asthma Capitals reports to raise awareness of asthma, identify cities and communities to partner with, and educate public officials on the challenges of living with asthma.

Our goal is that this annual report encourages local advocates and leaders to take action.

Over the years that we've been publishing this report, we've seen real-world examples of the report doing what we always wanted it to do-fuel change and lasting impact to help communities highly burdened by asthma.

Springfield, Massachusetts

In 2018 and 2019, Springfield, MA, ranked as the #1 Asthma Capital. Since then, data from the Asthma Capitals report has been used to raise awareness about how asthma triggers can impact asthma outcomes and led to actions aimed at reducing asthma prevalence and burden in the greater Springfield area.

A major victory for Springfield advocates was the prevention of a biomass power plant that had been proposed for the city.⁴⁵ Citing the Asthma Capitals report, local residents, health professionals, and environmental activists united against the plant, which they argued would worsen air quality and increase respiratory issues, including asthma.⁴⁶ This coalition raised public awareness about the potential health impacts, mobilized community members to attend public hearings, and lobbied local and state government officials. The campaign also highlighted the disproportionate impact the plant would have on low-income and minority communities, framing the plant's construction as not only a health issue but also an environmental justice issue.

In 2021, the Massachusetts Department of Environmental Protection revoked the plant's permit, citing the significant potential harm to air quality and public health.⁴⁵



A 2019 protest in Springfield against a biomass plant. (Photo courtesy of Rene Theberge. Source: WBUR)

In addition to stopping the biomass plant, Springfield has launched several air quality monitoring projects to provide real-time data on air pollution levels. These projects involve the installation of air quality sensors throughout the city, particularly in areas with high asthma rates and near potential sources of pollution like industrial sites and heavy traffic corridors.





The data collected from these sensors is used to inform residents about current air quality conditions through various platforms, including online dashboards and mobile apps. This realtime information allows individuals, especially those with respiratory conditions, to make informed decisions about outdoor activities, helping them avoid exposure during high pollution periods.

Additionally, the city has implemented stricter regulations on other sources of air pollution, promoted greener infrastructure projects, expanded access to asthma management programs, and integrated asthma education into school curriculums.47

Community engagement has been key to the success of Springfield's initiatives. Local groups have worked to ensure that residents are informed and involved in advocacy efforts. Educational campaigns and workshops are regularly conducted to raise awareness about asthma and the importance of clean air.

These comprehensive efforts in Springfield demonstrate a strong, community-backed response to its asthma burden, emphasizing environmental justice, public health, and empowerment of residents. Through these actions, Springfield continues to work towards reducing asthma rates and improving the quality of life for all residents.

New York State

In 2023, three New York cities ranked in the top 20 Asthma Capitals (Rochester, Poughkeepsie, and New York City). These three cities remain in the top 20 in this year's report.

Following the release of the 2023 Asthma Capitals report, Earthjustice issued a call to action to support New York's Green Transit Green Jobs bill, citing cities in New York that ranked in the report.⁴⁸ Additionally, a coalition of over 50 organizations called on the Governor to include the bill in her executive budget.49

The proposed bill would mandate that all state transit authorities transition to purchasing only zero-emission buses by 2029. The bill aimed to cut down the emissions from diesel buses that serve as a significant source of urban air pollution. It also outlined protections for existing workers, ensuring that they are not left behind as the state moves towards more sustainable transit solutions. Additionally, the bill addressed environmental justice concerns by specifically aiming to reduce pollution in low-income communities and communities of color, which often bear the brunt of environmental hazards.



Despite efforts by many advocates to improve asthma outcomes in New York-with a clear focus on sustainability, public health, and social and environmental equity-the Green Transit, Green Jobs bill has not yet passed in New York as of 2024.50

Local advocates have pledged to continue efforts to improve climatefriendly and sustainable transportation legislation. AAFA supports ongoing efforts by Earthjustice, the ElectrifyNY coalition, and many other organizations that continue to advocate for better environmental policies in New York.





San Joaquin Valley, California

Several California cities in the San Joaquin Valley (Fresno, Stockton, and Bakersfield) frequently rank high in our Asthma Capitals. Between 2021 and 2024, Fresno was ranked in the top 20 each year. Air pollution—a significant trigger for asthma—remains an especially challenging reality in the San Joaquin Valley. In recent years, local leaders, advocates, and health organizations have collaborated on a series of initiatives aimed at reducing asthma triggers, particularly those related to environmental and air quality factors.

Citing the Asthma Capitals report, Representative Josh Harder (CA-9) announced that Stockton Unified School District will receive \$6.9 million in federal funds to replace 20 diesel school buses with new clean electric buses.⁵¹

"I grew up with childhood asthma because of our poor air quality and I don't want my daughters to have to deal with it too," said Rep. Harder in the statement. "These 20 new electric buses will help our kids breathe cleaner air, save taxpayer dollars, and combat climate change. A real win-win-win. Excited to bring this funding home."

Additionally, Rep. Harder spoke with KCRA 3 about asthma challenges in his district. "Hopefully this report can spur more action because it's long overdue to make sure we address the root causes of why our air quality is so bad," Rep. Harder said, referring to AAFA's Asthma Capitals report.⁵²

At the state level, California leads the way in targeted actions to combat poor air quality. Coalitions of environmental organizations, health advocates, and government agencies have implemented initiatives to reduce air pollution across the state, with a particular focus on urban areas most affected by asthma.

Ongoing state and local policy initiatives in California focus on:

- Stricter regulations that target major sources of air pollution
- Zero-emission technologies
- Increased air quality monitoring
- Improved air filtration systems for schools and public buildings
- Community outreach and education programs
- Reduction of wildfire risks

Proactive steps taken by California to address the asthma burden and poor air quality highlight the state's commitment to public health and environmental justice. California-and the San Joaquin Valley in particular-continues to set an example for other states facing similar challenges with asthma.

Allentown, Pennsylvania

Allentown, PA, was the #1 Asthma Capital in 2021, 2023, and again this year in 2024. Following the publication of the 2023 report, local leaders and health officials in the Lehigh Valley (where Allentown sits) reached out to AAFA to learn more about the report.

Beginning in late 2024, AAFA will be supporting the Allentown community with developing and launching the EASE Allentown: Empowering Asthma Self-Management and Education program. This project will be led by the Health Promotion Council of Southeastern Pennsylvania, Inc. (HPC), a subsidiary of Public Health Management Corporation, in collaboration with local partners. See page 33 for more information about this new partnership.





Cleveland, Ohio

In 2021, Cleveland, OH, was the #6 Asthma Capital—and it has remained in the top 10 each year since then. In 2022, the city initiated the deployment of a mobile air-monitoring unit and approximately 30 lower-cost sensors capable of detecting fine particulates and ground-level ozone. These sensors were placed in historically redlined areas that lacked coverage by existing permanent air-monitoring stations. This initiative aimed to provide a more comprehensive understanding of air quality issues in disadvantaged neighborhoods.53

By 2024, the data collected from these new monitoring tools had begun to influence local health policies. The Cleveland Division of Air Quality used this data to inspect factories for compliance with emissions permits and to identify specific causes of poor air quality, enabling them to recommend effective mitigation strategies. This proactive approach has been instrumental in addressing the root causes of air pollution in the city.54

The CLEANinCLE project, launched as part of these efforts, plays a crucial role in empowering residents and improving public health.⁵⁵ By providing real-time data on air quality, the project enables residents to make informed decisions about their health and activities. It also supplies the Cleveland Division of Air Quality with valuable information needed to identify pollution hotspots and implement corrective actions.

Detroit, Michigan

In 2022, Detroit, MI, was the #1 Asthma Capital. It came in at #3 the following year. Since 2022, AAFA has been funding a local health equity program in Detroit and nearby areas-led by the AAFA Michigan Chapter.

Additionally, advocates in the state are working toward improved air quality. Smoke originating from the 2023 wildfires in Canada significantly impacted air quality in Wayne County, where Detroit sits. With funding provided by the American Rescue Plan Act, the Wayne County Community Air Quality Project launched in 2023 and will span over three years. The project will provide 500 mobile air quality monitors to children and families and install 100 stationary air monitors in 43 communities across the county. Some of the mobile monitors will be placed on top of quick-relief inhalers used by children with asthma. The mobile monitor on the inhaler-as well as the nearest stationary monitor-will measure air quality at the time of an asthma exacerbation. The data will be used to help advocate for additional clean air standards for local industries contributing to poor air quality.

The county contracted with JustAir, a Michigan-based air quality monitoring company. JustAir's co-founder and CEO, Darren Riley, developed asthma as a young adult when he moved into the southwest Detroit community.

> Do you have a local story about the Asthma Capitals report supporting action and advocacy in your community? We want to hear! Let us know at advocacy@aafa.org.





Methodology

The 2024 Asthma Capitals™ research and ranking is reported by the Asthma and Allergy Foundation of America (AAFA). The ranking is based on analysis of data from the 100 most-populated Metropolitan Statistical Areas (MSAs) in the contiguous 48 states as determined by the most recent U.S. Census Bureau population estimates (2022). The three (3) individual factors analyzed for the 2024 rankings are: estimated asthma prevalence; crude death rate from asthma; and emergency department visits due to asthma. Weights are applied to each factor and factors are not weighted equally. Total scores are calculated as a composite of all 3 factors, and cities are ranked from highest total score (city rank #1) to lowest total score (city rank #100).

Estimated Asthma Prevalence

For each MSA, AAFA estimated asthma prevalence using claims data for individuals who sought asthma care at any point in the 2023 calendar year. Data were obtained from the Komodo Health Prism Health Care Database for the most recent calendar year (2023). While this is not an exact measure of prevalence, it helps provide data that can be compared from city to city. Other prevalence estimates, such as those from the CDC, use self-reported data through surveys.

Crude Death Rate From Asthma

For each city, AAFA obtained the estimated asthma-related crude death rate per 100,000 people for the respective county using asthma ICD-10 codes as the underlying cause of death. Data were obtained from the CDC's WONDER Online Database for the most recent 5-year period (2018-2022).

Emergency Department Visits Due to Asthma

For each MSA, AAFA obtained the total number of emergency department visits where an asthma ICD-10 code was included as a diagnosis. Data were obtained from the Komodo Health Prism Health Care Database for the most recent calendar year (2023). Emergency department visits were calculated per 10,000 asthma patients using prevalence estimates.

Risk Factors

Data on the following asthma-related risk factors were obtained and analyzed; however, these data did NOT factor into the scores or rankings. Data are from the most recently available calendar year.

- Annual Air Quality Pollution levels and number of unhealthy outdoor ozone days, scored on a scale of A (best) to F (worst). Data were obtained from the American Lung Association 2024 State of the Air Report, which analyzed air quality monitoring data from 2020-2022.
- Medication Use Number of long-term controller and quick-relief medication prescriptions per patient prevalence. Data were obtained from the Komodo Health Prism Health Care Database for the most recent calendar year (2023).
- Public Smoking Laws Number of "100% smokefree" public smoking bans as of July 1, 2024. Data were obtained from the American Nonsmokers Rights Foundation.
- Poverty rate Estimated population living in poverty. Data were obtained from the United States Census Bureau Small Area Income and Poverty Estimates (2022).
- Uninsured rate Estimated population without health insurance. Data were obtained from the United States Census Bureau Small Area Health Insurance Estimates (2022).
- Access to specialists The number of asthma specialists per patient prevalence. Data were obtained from the Komodo Health Prism Health Care Database for the most recent calendar year (2023).





Resources

Get general information on asthma: aafa.org/asthma

Get general information on allergies: aafa.org/allergies

Join AAFA's patient support community for emotional support and asthma education: aafa.org/join

Follow our blog for news on asthma and allergies: aafa.org/blog

Find products to help you create a healthier home through our asthma & allergy friendly[®] **Certification Program:** aafa.org/certified

Learn how to improve your indoor air quality: aafa.org/iaq

Learn how to manage pollen allergies: aafa.org/pollen

Find school resources for managing your child's asthma: aafa.org/school

Download an Asthma Action Plan: aafa.org/asthmaactionplan

Learn more about September Asthma Peak: aafa.org/asthmapeak

AAFA's Allergy Capitals[™] Report: allergycapitals.com

AAFA's COVID Resource Center: aafa.org/covid-19

Continuing Education for Health Care Professionals: aafa.org/ameo

AAFA's Asthma Disparities Report: aafa.org/asthmadisparities

National Asthma and Allergy Awareness Month: aafa.org/awarenessmonth

Find an allergist or immunologist: acaai.org/find-an-allergist

Follow the EPA's air quality reports: airnow.gov

Follow daily local pollen counts: pollen.aaaai.org

Find an automated pollen sensor: pollensense.com

ALA's State of the Air Report: stateoftheair.org

For help to quit or reduce smoking: smokefree.gov CDC.gov/quit

Asthma & Allergy Awareness People need clean air, healthy environments, and affordable accessible health care

aafa.org





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