

fall
AllergyCAPITALS
2016



THE MOST
CHALLENGING PLACES
TO LIVE WITH
FALL ALLERGIES



Asthma and Allergy
Foundation of America

Message from AAFA

The Asthma and Allergy Foundation of America (AAFA) is pleased to share this year's Fall Allergy Capitals™ Report which ranks the 100 largest cities in the continental United States. AAFA has published this annual report since 2003 to help patients recognize, prevent, and manage allergy symptoms, and to help communities recognize where the needs of their residents with allergic diseases can be better met. Through the ranking, we seek to raise awareness about the impact of fall seasonal allergies and provide helpful information to improve the quality of life for the people who experience them.

In the absence of a cure, successful management of chronic and life threatening diseases such as allergies requires recognizing signs and symptoms; provider diagnosis and treatment; reducing or controlling exposure to environmental triggers and ongoing patient (and family/caregiver) involvement, monitoring and self-management.

AAFA is committed to working on behalf of individuals with allergies and asthma and their families and caregivers. We are dedicated to improving the quality of life for people with asthma and allergic diseases, wherever they live, learn, work, or play, through education, advocacy and research. We look forward to ongoing collaborations with stakeholders such as researchers, payers, scientists, clinicians, industry, and policymakers to improve the quality of life for people with allergies and asthma. And we will continue to promote public policy initiatives that improve and protect quality of life and treatment options for those affected by asthma and allergies.

AAFA would like to acknowledge staff members Deidre Washington, PhD and Stacy Cooks for their contributions to data collection, analysis and writing. AAFA would also like to thank Mike Tringale for his input and willingness to review preliminary versions of this year's report. AAFA also wishes to thank the broad and diverse range of subject matter experts and stakeholders who helped develop the approach and methodology used to produce this report.

Sincerely,

Cary Sennett, MD, PhD
President and CEO

Meryl Bloomrosen, MBI, MBA
Senior Vice President, Policy,
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AAFA's 2016 Fall Allergy Capitals™ Report was supported in part by pollen.com (Quintiles IMS).

Background and Introduction

For millions of Americans, allergy is life-limiting. It is critical for people to recognize elements that may trigger their allergies and to determine ways to reduce exposure as well as to consider appropriate treatments.^{1,2,3} Allergic conditions are of special concern among the elderly.⁴

Allergies, the sixth leading cause of chronic illness in the U.S., are a major public health concern.¹ Although there are approaches that can reduce allergic sensitivity, there is no cure for allergies. Allergies can be managed with prevention and treatment. More Americans than ever say they suffer from allergies. They are among the country's most common, but overlooked, diseases. In the U.S., more than \$18 billion is spent on allergy treatment, annually.¹

Allergic rhinitis, often called hay fever, is a common condition that causes symptoms such as sneezing, stuffy nose, runny nose, watery eyes and itching of the nose, eyes or the roof of the mouth. Pollen from trees, grasses and weeds are the main causes of allergies; allergy symptoms can occur year-round.⁵ Allergic conditions are among the most common health issues affecting children in the U.S.⁶ In data published from the 2015 National Health Interview Survey (NHIS), 8.4% of U.S. children under age 18 suffered from hay fever, and 10% suffered from respiratory allergies.⁷

About the Asthma and Allergy Foundation of America

Founded in 1953 and celebrating over 60 years of service, the Asthma and Allergy Foundation of America (AAFA) is the oldest and largest nonprofit patient organization dedicated to improving the quality of life for people with asthma, allergies and related conditions through education, advocacy and research. AAFA provides practical information, community-based services, support and referrals through a national network of chapters and educational support groups. Through its Kids With Food Allergies division, AAFA offers the oldest, most extensive online support community for families raising children with food allergies. In addition, AAFA sponsors and advocates for research to advance the basic science relevant to treatment and cure. It also champions translational research so that the science that we have is applied more consistently and reliably. For more information, visit www.aafa.org, and www.kidswithfoodallergies.org.

"The Most Challenging Places to Live with Fall Allergies"

Worse than Average ●
Average ◐
Better than Average ○

www.AllergyCapitals.com

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(Factors are not weighted equally)

NATIONAL RANKINGS

2016 National Fall Rankings (*Tie)	Overall	Rank Last Year	Metropolitan Area	Total Score (Avg. 57.54)	Subtotal: Pollen Score**	Subtotal: Medicine Utilization per Patient	Subtotal: Board Certified Allergists per Patient
1	●	2	Jackson, MS	100.00	●	●	○
2	●	4	Memphis, TN	94.62	●	●	◐
3	●	3	McAllen, TX	93.57	●	●	●
4	●	1	Louisville, KY	89.95	●	●	◐
5	●	5	Syracuse, NY	87.28	●	●	◐
6	●	7	Oklahoma City, OK	85.50	●	●	◐
7	●	12	Buffalo, NY	84.85	●	●	◐
8	●	8	Dayton, OH	80.81	●	●	◐
9	●	18	Toledo, OH	77.86	◐	●	◐
10	●	6	Knoxville, TN	76.85	◐	●	◐
11	●	13	New Orleans, LA	76.79	●	●	◐
12*	●	11	Providence, RI	76.57	◐	●	●
12*	●	16	Tulsa, OK	76.57	●	●	◐
14	●	10	Baton Rouge, LA	76.12	●	●	◐
15	●	19	Little Rock, AR	75.59	◐	●	○
16	●	14	San Antonio, TX	72.48	●	◐	◐
17	●	31	Akron, OH	71.50	●	◐	◐
18	●	38	Youngstown, OH	70.85	●	◐	◐
19	●	21	Springfield, MA	70.23	●	◐	◐
20	●	23	Richmond, VA	70.21	●	◐	◐
21	●	46	Cleveland, OH	69.30	●	◐	◐
22	●	15	Chattanooga, TN	68.75	◐	●	◐
23	●	17	Dallas, TX	68.56	●	◐	◐
24	●	24	Columbia, SC	68.22	◐	●	◐
25	●	27	Madison, WI	68.20	◐	●	○
26	●	28	Omaha, NE	68.16	◐	●	◐
27	◐	20	Nashville, TN	67.17	◐	●	◐
28	◐	32	Detroit, MI	66.71	◐	●	◐
29	◐	22	Birmingham, AL	64.53	◐	●	◐
30	◐	50	Pittsburgh, PA	64.39	●	◐	◐
31	◐	44	Albany, NY	63.28	◐	◐	◐
32	◐	37	Philadelphia, PA	63.14	◐	●	◐

2016 National Fall Rankings	Overall	Rank Last Year	Metropolitan Area	Total Score (Avg. 57.54)	Subtotal: Pollen Score**	Subtotal: Medicine Utilization per Patient	Subtotal: Board Certified Allergists per Patient
33	●	25	Des Moines, IA	63.04	●	●	●
34	●	33	Grand Rapids, MI	62.86	●	●	●
35	●	34	Charleston, SC	61.42	○	●	●
36	●	41	Augusta, GA	60.19	○	●	○
37	●	76	Greenville, SC	59.95	○	●	●
38	●	30	St. Louis, MO	59.75	●	●	●
39	●	40	Winston-Salem, NC	59.48	○	●	●
40	●	54	Indianapolis, IN	58.58	●	●	●
41	●	45	Houston, TX	58.10	●	●	●
42	●	53	Greensboro, NC	57.85	○	●	●
43	●	39	Columbus, OH	57.35	●	●	●
44	●	79	Cape Coral, FL	57.28	●	○	●
45	●	62	Rochester, NY	57.09	●	●	○
46	●	35	Austin, TX	57.04	●	●	●
47	●	43	Hartford, CT	56.87	●	○	●
48	●	36	New Haven, CT	56.82	●	●	○
49	●	26	El Paso, TX	56.78	●	●	●
50	●	63	Fresno, CA	56.75	○	●	●
51	●	55	Kansas City, MO	56.58	●	●	●
52	●	48	New York, NY	56.48	○	●	●
53	●	58	Scranton, PA	56.45	○	●	●
54	●	47	Tucson, AZ	55.34	●	●	●
55	●	49	Charlotte, NC	55.20	○	●	●
56	●	64	Minneapolis, MN	55.06	●	○	●
57	●	n/a	Durham, NC	54.98	○	●	○
58	●	57	Allentown, PA	54.67	●	●	●
59	●	9	Wichita, KS	54.48	●	○	●
60	●	61	Milwaukee, WI	54.19	●	●	●
61	●	67	Albuquerque, NM	53.83	●	●	●
62	●	52	Riverside, CA	53.62	●	○	●
63	●	42	Jacksonville, FL	53.47	●	●	●
64	●	56	Bridgeport, CT	52.16	●	○	○
65	●	29	Virginia Beach, VA	51.97	○	○	●
66	●	59	Cincinnati, OH	51.72	○	●	●
67	●	66	Chicago, IL	51.12	●	○	●
68	●	51	Miami, FL	50.70	●	○	●
69	●	69	Harrisburg, PA	48.68	○	●	●
70	●	71	Tampa, FL	48.42	●	●	●
71	●	73	Worcester, MA	48.24	○	●	●
72	●	75	Los Angeles, CA	47.91	●	○	●
73	●	60	Atlanta, GA	47.71	○	●	●
74	●	72	Lakeland, FL	47.67	●	●	●
75	●	70	Phoenix, AZ	47.65	○	●	●
76	○	78	Baltimore, MD	47.49	○	●	●
77	○	77	Bakersfield, CA	45.32	○	○	●
78	○	65	Las Vegas, NV	44.68	○	○	●
79	○	88	Spokane, WA	43.86	●	○	●

2016 National Fall Rankings	Overall	Rank Last Year	Metropolitan Area	Total Score (Avg. 57.54)	Subtotal: Pollen Score**	Subtotal: Medicine Utilization per Patient	Subtotal: Board Certified Allergists per Patient
80	○	80	Boston, MA	43.40	○	◐	◐
81	○	68	Orlando, FL	43.18	○	○	●
82	○	81	Oxnard, CA	42.88	◐	○	◐
83	○	83	Salt Lake City, UT	42.30	◐	○	◐
84	○	82	Ogden, UT	40.83	◐	○	●
85	○	85	Sarasota, FL	40.23	◐	○	◐
86	○	95	San Diego, CA	40.15	◐	○	○
87	○	84	Washington, DC	39.94	○	○	●
88	○	87	Raleigh, NC	39.40	○	○	◐
89	○	89	Seattle, WA	38.84	○	○	◐
90	○	98	Stockton, CA	38.26	○	○	◐
91	○	94	Provo, UT	36.69	◐	○	◐
92	○	100	Palm Bay, FL	36.68	○	○	◐
93	○	91	Boise, ID	36.41	○	○	◐
94	○	86	Colorado Springs, CO	36.22	○	○	◐
95	○	92	San Francisco, CA	34.72	○	○	◐
96	○	93	Denver, CO	34.62	◐	○	◐
97	○	90	Daytona Beach, FL	34.08	○	○	◐
98	○	96	Portland, OR	33.90	○	○	●
99	○	99	Sacramento, CA	33.38	○	○	◐
100	○	97	San Jose, CA	32.51	○	○	○

2016 REGIONAL RANKINGS (Top-5)

2016 Regional Fall Rankings Midwest	Overall	National Rank	Metropolitan Area	Total Score (Avg. 57.54)	Subtotal: Pollen Score**	Subtotal: Medicine Utilization per Patient	Subtotal: Board Certified Allergists per Patient
1	●	8	Dayton, OH	80.81	●	●	◐
2	●	9	Toledo, OH	77.86	◐	●	◐
3	●	17	Akron, OH	71.50	●	◐	◐
4	●	18	Youngstown, OH	70.85	●	◐	◐
5	●	21	Cleveland, OH	69.30	●	◐	◐

2016 Regional Fall Rankings Northeast	Overall	National Rank	Metropolitan Area	Total Score (Avg. 57.54)	Subtotal: Pollen Score**	Subtotal: Medicine Utilization per Patient	Subtotal: Board Certified Allergists per Patient
1	●	5	Syracuse, NY	87.28	●	●	◐
2	●	7	Buffalo, NY	84.85	●	●	◐
3	●	12	Providence, RI	76.57	◐	●	●
4	●	19	Springfield, MA	70.23	●	◐	◐
5	◐	30	Pittsburgh, PA	64.39	●	◐	◐

2016 Regional Fall Rankings South	Overall	National Rank	Metropolitan Area	Total Score (Avg. 57.54)	Subtotal: Pollen Score**	Subtotal: Medicine Utilization per Patient	Subtotal: Board Certified Allergists per Patient
1	●	1	Jackson, MS	100.00	●	●	○
2	●	2	Memphis, TN	94.62	●	●	◐
3	●	3	McAllen, TX	93.57	●	●	●
4	●	4	Louisville, KY	89.95	●	●	◐
5	●	6	Oklahoma City, OK	85.50	●	●	◐
2016 Regional Fall Rankings West	Overall	National Rank	Metropolitan Area	Total Score (Avg. 57.54)	Subtotal: Pollen Score**	Subtotal: Medicine Utilization per Patient	Subtotal: Board Certified Allergists per Patient
1	◐	50	Fresno, CA	56.75	○	◐	◐
2	◐	54	Tucson, AZ	55.34	◐	◐	◐
3	◐	61	Albuquerque, NM	53.83	◐	◐	◐
4	◐	62	Riverside, CA	53.62	◐	○	●
5	◐	72	Los Angeles, CA	47.91	◐	○	◐

2016 Rank - Rankings for the Allergy Capitals™ are based on analysis of data from factors including: Prevalence Data, Seasonal Pollen, Allergy Medicine Utilization per Patient, and the number of Board Certified Allergists per patient. Weights were applied to each factor and a composite final score was calculated for each Metropolitan Statistical Area (MSA).

Total Score - Final total scores and subtotals were rescaled assigning 100 points to the largest score and presenting all other scores as a percentage of the largest. The metro area with a total score of 100 points did not necessarily have the "most severe" score for all factors, but, rather, the highest total weighted final score overall.

Pollen Score** - Quantitative data analysis of average recorded pollen/mold spore levels and predicted prevalence for certain types of pollens/molds over the most recent fall season and the duration of the peak season for the most allergenic pollen types; this score also takes into consideration local prevalence statistics for people affected by allergies to pollen. (Regarding daily pollen counts: previous studies have shown that daily pollen concentrations of 150+ grains per cubic meter of airborne allergenic pollen is a sufficiently high concentration which can trigger allergy symptoms in a large percentage of the allergic population.)

Medicine Utilization per Patient Score - Quantitative data analysis of recorded per capita utilization of recorded pharmacy data for prescription (RX) allergy medicines in each metro area during the most recent fall season. Also includes over-the-counter (OTC) and behind-the-counter (BTC) allergy medication sales at the pharmacy counter.

Board Certified Allergists per Patient Score - Quantitative data analysis for the most recent fall season of the number of Board Certified allergy and immunology specialists per 10,000 estimated patients.

GOVERNMENTAL SOURCES:

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NON-GOVERNMENTAL SOURCES:

Asthma and Allergy Foundation of America, "Asthma and Allergy Answers" (2015)

American Board of Medical Specialties, Specialist Database (2016)

INDUSTRY SOURCES:

IMS/SDI Pollen.com Database (2015)

IMS Medication Database (2015)

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