

# "The Most Challenging Places to Live with Asthma"

The Asthma Capitals<sup>™</sup> is an annual research project of the Asthma and Allergy Foundation of America® (AAFA) to identify "the most challenging places to live with asthma." This report provides a summary of factors used to compare and rank the 100 largest U.S. metro areas. Visit us online to learn how to manage your asthma better no matter where you live. Go to <u>www.AsthmaCapitals.com</u>, call 1-800-7-ASTHMA or write to <u>info@aafa.org</u> for more information. This year's report is sponsored by QVAR® (beclomethasone dipropionate HFA) Inhalation Aerosol and Teva Pharmaceuticals. (See Important Safety Information page 7.)

- Worse than Average
- Average\*
- O Better than Average

Factors are not weighted equally

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					Prev	alence Fa	ctors			Risk Fa	Medical Factors						
n	2015 ational rank	Total score	Rank last year	. Metro area	Estimated asthma prev- alence	Self- reported asthma prev- alence	Crude death rate for asthma	Annual pollen score	Air quality	"100%" public smoke- free laws △	Poverty rate	Un- insured rate	School inhaler access law ▼	ER visits for asthma	Use of quick relief meds	Use of control meds	Number of special- ists
1		100.00	2	Memphis, TN	0	0							0		$\bullet$		0
2		96.21	1	Richmond, VA				$\bullet$					0				
3		95.23	5	Philadelphia, PA									0		$\bullet$		
4		94.53	10	Detroit, MI				0					0		$\bullet$		
5		93.22	4	Oklahoma City, OK				•					0		$\bullet$		
6		92.20	14	Augusta, GA				0		•	•	•	0		$\bullet$		0
7		90.25	41	Knoxville, TN	0	0	0			•			0		$\bullet$	•	0
8		90.14	6	Chattanooga, TN	0	0							0				0
9		88.68	22	New Orleans, LA	0	0							0				0
10		88.62	9	Chicago, IL		0							0				
11		88.33	32	Indianapolis, IN				0					0				
12	. •	87.81	11	New Haven, CT		•	0	•		•	0	0	0		$\bullet$	•	0
13		87.64	7	Fresno, CA								•	0				
14		87.56	33	Providence, RI			0						0				•
15		87.00	8	Tulsa, OK						•		•	0	0			
16		86.88	13	Atlanta, GA				0	•				0		(	0	





					Prev	alence Fa	ctors			Risk Fa	Medical Factors						
20 natio ratio	onal	Total score	Rank last year	, Metro area	Estimated asthma prev- alence	Self- reported asthma prev- alence	Crude death rate for asthma	Annual pollen score	Air quality	"100%" public smoke- free laws △	Poverty rate	Un- insured rate	School inhaler access law ▼	ER visits for asthma ✔	Use of quick relief meds	Use of control meds	Number of special- ists
17		86.83	3	McAllen, TX	0	0	0		0				0	0	$\bullet$		
18		86.79	21	Dayton, OH								0	0		$\bullet$		
19	$\bullet$	86.63	12	Allentown, PA			0				0	0	0				
20		86.58	23	Cleveland, OH								0	0		•		0
21		86.15	16	Louisville, KY			0						0				
22		86.09	19	Milwaukee, WI				0				0	0		•		0
23		85.87	18	Springfield, MA					0			0	0		•		
24		85.07	25	Toledo, OH									0		•		
25	$\bullet$	84.97	20	Jacksonville, FL									0		$\bullet$		
26		84.64	26	St. Louis, MO							0		0				
27		84.59	15	Pittsburgh, PA			0				0	0	0	0			0
28	$\bullet$	84.58	27	Little Rock, AR									0		$\bullet$		0
29	$\bullet$	84.47	38	Nashville, TN	0	0							0		$\bullet$		0
30	$\bullet$	84.20	42	Jackson, MS					0				0		$\bullet$		0
31	$\bullet$	83.45	31	Akron, OH							0	0	0		$\bullet$		
32	$\bullet$	83.14	35	Wichita, KS									0		$\bullet$		
33		82.66	39	Hartford, CT							0	0	0				
34		82.44	34	Cincinnati, OH				0				0	0				
35		82.34	61	New York, NY				0				0	0		$\bullet$		
36		80.98	28	Bridgeport, CT			0				0	0	0		0		0
37		80.92	17	Bakersfield, CA									0		(	0	
38		80.84	45	Youngstown, OH								0	0		•		
39		79.83	43	Dallas, TX	0	0							0		•		
40		79.79	54	Las Vegas, NV	0	0	0						0		$\bullet$		
41		79.52	47	Scranton, PA				0	0		0	0	0				
42		79.51	24	Stockton, CA				0					0		0	0	
43		79.08	37	Harrisburg, PA			0	0			0	0	0	0			0
44		78.75	48	Birmingham, AL				0					0		$\bullet$		0
45		78.61	30	El Paso, TX	0	0	0						0	0			
46		77.22	40	Phoenix, AZ			0				•		0	0			
47		77.04	85	Albuquerque, NM			0						0	0			0
48		76.65	51	Washington, DC				0				0	0	0	0	0	
49		76.64	46	Columbus, OH									0				
50		76.57	29	Riverside, CA			0						0	0	0	0	





					Prev	alence Fa	ctors			Risk Fa		Medical Factors					
nati	15 onal nk	Total score	Rank last year	Metro area	Estimated asthma prev- alence	Self- reported asthma prev- alence	Crude death rate for asthma	Annual pollen score	Air quality	"100%" public smoke- free laws △	Poverty rate	Un- insured rate	School inhaler access law ▼	ER visits for asthma	Use of quick relief meds	Use of control meds	Number of special- ists
51		75.83	52	Salt Lake City, UT						0	0		0	0	0		0
52		75.70	44	Los Angeles, CA									0	0	0	0	
53		75.56	60	Columbia, SC									0		0		
54		75.10	50	Tampa, FL									0				
55		74.91	69	Greenville, SC									0				
56		74.77	68	Charleston, SC				0	0				0				0
57		74.55	36	Virginia Beach, VA			0		0		0	0	0				
58		74.47	55	Lakeland, FL			0		0				0				
59		74.39	73	Buffalo, NY			0				0	0	0		•		
60		74.37	62	Greensboro, NC									0		•		
61		74.29	58	Miami, FL			0		0				0	0			
62		74.28	78	Syracuse, NY			0		0		0	0	0	0	•		
63		74.17	70	Grand Rapids, MI			0		•	•	0	0	0		0		
64		73.97	49	Orlando, FL			0	0	0				0				
65		73.92	57	San Antonio, TX	0	0	0		•	(	•		0		•		0
66		73.78	83	Omaha, NE	0	0					0	0	0	0	•		0
67		73.06	80	Winston-Salem, NC			0	•					0	0	•		0
68		72.99	87	Charlotte, NC			0	0	•				0				
69		72.78	66	Ogden, UT				•		0	0		0	0	0	0	
70		72.76	95	Albany, NY			0	•	0		0	0	0		•	•	
71		72.64	65	Baton Rouge, LA	0	0	0	•			•		0				0
72		72.50	59	Kansas City, MO		•		0	0	•		•	0	0			
73		71.90	56	Sacramento, CA				0		0			0	0	0	0	
74		71.27	71	Boston, MA		•		0	0		•	0	0			0	
75		71.01	79	Tucson, AZ					0			•	0	0			0
76		70.77	53	Baltimore, MD				0			0	0	0	0			0
77	0	69.69	64	Daytona Beach, FL				0	0	•	•	•	0	•	0	0	
78	0	69.55	90	Denver, CO				•	(	•	•	•	0	0	0	0	
79	0	69.39	77	Worcester, MA			0	0	0		0	0	0		•		0
80	0	68.43	97	Spokane, WA			•	•	0				0	0		0	
81	0	68.37	91	Madison, WI				•	0		0	0	0	0	•	•	0
82	0	68.13	63	Houston, TX	0	0	0		•	(		•	0	0			
83	0	67.88	86	Oxnard, CA						(	0	•	0	0	0	0	
84	0	67.82	94	Provo, UT						0	0	0	0	0	0	0	





					Prev	alence Fa	ctors			Risk Fa	Medical Factors						
nat	)15 ional ank	Total score	Rank last year	Metro area	Estimated asthma prev- alence	Self- reported asthma prev- alence	Crude death rate for asthma	Annual pollen score	Air quality	"100%" public smoke- free laws △	Poverty rate	Un- insured rate	School inhaler access law ▼	ER visits for asthma	Use of quick relief meds	Use of control meds	Number of special- ists
85	0	67.66	67	San Diego, CA			0	0			0		0	0	0	0	0
86	0	67.05	93	Des Moines, IA	0	0	0		0		0	0	0	0	$\bullet$		0
87	0	66.46	72	Minneapolis, MN		0			0		0	0	0	0			
88	0	65.39	89	Colorado Springs, CO					0		0	0	0	0	0	0	
89	0	65.11	96	Rochester, NY			0		0			0	0	0	•		0
90	0	65.03	92	Portland, OR				0	0	0			0	0	0	0	
91	0	65.01	88	Austin, TX	0	0	0		0				0	0			
92	0	64.84	81	Raleigh, NC			0	0	0				0		0		0
93	0	64.56	75	Sarasota, FL			0		0		0		0		0	0	
94	0	63.74	82	Cape Coral, FL			0		0				0	0	0		
95	0	63.41	76	Palm Bay, FL			0	0	0		0		0		0		
96	0	62.53	74	Abilene, TX	0	0							0	0	0	0	
97	0	62.33	84	San Jose, CA			0	0		0	0	0	0	0	0	0	0
98	0	61.81	99	Seattle, WA			0	0	0	•	0	0	0	0	0	0	
99	0	61.38	98	Boise, ID			0	0			0		0	0	0	0	
100	0	60.28	100	San Francisco, CA			•	0	0	0	0	0	0		0	0	

	Prev	alence Fa	ctors			Risk Fa	ictors			Medical Factors				
*2015 LIST AVERAGES	Estimated asthma prev- alence	Self- reported asthma prev- alence	Crude death rate for asthma	Annual pollen score	Air quality	"100%" public smoke- free laws $\Delta$	Poverty rate	Un- insured rate	School inhaler access law ▼	ER visits for asthma ✔	Use of quick relief meds	Use of control meds	Number of special- ists	
2015 LIST AVERAGES	8.90%	8.70%	1.20 per 100,000 deaths	12.60% pollen- affected popu la- tion	Avg. C- on A to F scale	Avg. 2.44 on 0 to 4 scale	17.30%	16.86%	access law	195.22 ER visits per 10,000 est. Patients*	2.31 Rx per est. patient	2.50 Rx per est. patient	3.29 spcl per 10,000 est. patients	
Last Year's List Averages	8.78%	8.70%	1.28 per 100,000 deaths	13.38% pollen- affected popula- tion	C- on A to F scale	2.39 on 0 to 4 scale	17.76%	17.12%	All states had an access law	141.32 ER visits per 10,000 est. Patients*	2.15 Rx per est. patient	2.27 Rx per est. patient	4.86 spcl per 10,000 est. patients	





		R	REGION	AL RAI	NKINGS (Top-5)													
				Mid	west	Prev	alence Fa	ctors			Risk Fa		Medical Factors					
r	201 regio ran	onal	Total Score	2015 national rank	Metro area	Estimated asthma prev- alence	Self- reported asthma prev- alence	Crude death rate for asthma	Annual pollen score	Air quality	"100%" public smoke- free laws △	Poverty rate	Un- insured rate	School inhaler access law	ER visits for asthma	Use of quick relief meds	Use of control meds	Number of special- ists
1	1		94.53	4	Detroit, MI				0					0		•		
2	?		88.62	10	Chicago, IL		0	•						0				
3	3		88.33	11	Indianapolis, IN		•	•	0					0		•		
4	ļ.		86.79	18	Dayton, OH		•						0	0				
5	5		86.58	20	Cleveland, OH		•	•	$\bullet$				0	0		•		0
	Northeast																	
r	201 regio ran	onal	Total Score	2015 national rank	Metro area													
1	1		95.23	3	Philadelphia, PA									0				
2	?		87.81	12	New Haven, CT		•	0			•	0	0	0		•		0
3	3		87.56	14	Providence, RI		•	0	•					0		•		
4	ļ.		86.63	19	Allentown, PA		•	0	•		•	0	0	0				
5	5		85.87	23	Springfield, MA		•	•	•	0			0	0		•		
				So	uth													
ŗ	201 regic ran	onal	Total Score	2015 nationa I rank	Metro area													
1	1		100.00	1	Memphis, TN	0	0							0				0
2	?		96.21		Richmond, VA						•			0				
3	3		93.22	5	Oklahoma City, OK						•	•		0				
4	t I		92.20	6	Augusta, GA		•		0		•			0		•		0
5	5		90.25	7	Knoxville, TN	0	0	0	•		•			0				0
				W	est												-	
,	2015 regional rank		Total Score	2015 national rank	Metro area													
1	1	•	87.64	13	Fresno, CA									0		•		
2	2	•	80.92	37	Bakersfield, CA		(	•	•		(			0			0	
3	3	•	79.79	40	Las Vegas, NV	0	0	0	•		•			0		•		
4	1		79.51	42	Stockton, CA		•		0					0		0	0	
5	5		77.22	46	Phoenix, AZ		•	0	•					0	0			





## 2015 Asthma Capitals<sup>™</sup> Methodology

The U.S. Asthma Capitals<sup>™</sup> research and ranking is reported annually by the Asthma and Allergy Foundation of America® (AAFA). The ranking is based on analysis of data from the 100 most-populated Consolidated Metropolitan Statistical Areas (MSAs) in the U.S. including 13 individual factors grouped into three primary areas: (I) Prevalence Factors, (II) Risk Factors and (III) Medical Factors. Weights are applied to each set of data in each factor group by researchers and medical specialists, reflecting each factor's relative effect on the quality of life for people with asthma. Factors are not equally weighted. Total scores are calculated as a composite of all factors, and cities are ranked from highest total score (city rank #1) to lowest total score (city rank #100).

(I) PREVALENCE FACTORS – Quantitative data including morbidity statistics from the most recently available sources of estimated asthma prevalence, self-reported prevalence and crude death rates for asthma.

\*Estimated Prevalence for Asthma – predicted population with asthma (adult and pediatric) \*Self-Reported Prevalence for Asthma – self-reported population with asthma (adult, state-level only) \*Crude Death Rate from Asthma – recorded metro area death rates from asthma (adult and pediatric)

(II) RISK FACTORS – Qualitative and quantitative data from the most recently available sources of comprehensive annual pollen measurements, average length of peak pollen seasons, outdoor air quality (including number of ozone days and annual levels of pollution particulate matter [pm]), poverty rates, uninsured rates, state school inhaler access laws and primary MSA city/county/state laws prohibiting smoking in public places (including workplaces, restaurants, bars and/or cars with minors).

\*Annual Pollen Score – reported "Pollen Score" for each metro area ▲
\*Annual Air Quality – pollution levels and number of unhealthy outdoor ozone days, scored on a scale of: A (best) to F (worst)
\*Public Smoking Laws – number of "100% smoke-free" public smoking bans (bars, restaurants, workplaces and/or cars with minors) △
\*Poverty Rate – reported percent of metro area population in poverty
\*Uninsured Rate – reported percent of metro area population without health insurance
\*School Inhaler Access Laws – state laws ensuring student access to inhalers ▼

(III) MEDICAL FACTORS – Quantitative data from the most recently available sources in the 100 most populated U.S. cities for the number of ER visits for asthma per 10,000 patients, number of asthma rescue and controller medication prescriptions per patient, and the number of adult and pediatric specialists per 10,000 patients with their primary Board Certification in allergy & immunology and/or pulmonary medicine.

\*ER Visits for Asthma – number of out-patient plus in-patient Medicare and non-Medicare emergency room visits for asthma per patient \*Rescue Medication Use – number of rescue medication prescriptions per patient prevalence \*Controller Medication Use – number of controller medication prescriptions per patient prevalence \*Number of Asthma Specialists – number of Board Certified adult/pediatric allergists/immunologists and pulmonologists per patient

▲ Pollen Score is a comprehensive index of the population at risk of being affected by airborne allergenic pollen ("pollen-affected population") derived from actual pollen counts, allergy prevalence for each pollen type and related factors. △ Public smoke-free laws recognized by this report are "100%" public bans only; partial public smoking bans or bans with exceptions are not included. ▼ State school inhaler access laws recognized by this report refer to states having a single state-wide law protecting students' rights to carry and access asthma medications at school.





### Sources: Most Current Available Local-Level Data Used for the 2015 Asthma Capitals™

Decennial U.S. Census 2000, U.S. Department of Commerce, Census Bureau, and 2014 Population Estimate Updates National Annual Pollen Index Measurements and Reports, IMS Health Inc., Pollen.com Database, 2014 Local Tobacco Control Ordinance Database, American Nonsmokers' Rights Foundation, 2015 AAFA's Annual State Honor Roll of Asthma and Allergy School Policies, 2014 National Prescription Tracking Database, IMS Health Inc., 2014 National Medical Specialist Database, American Board of Medical Specialties, 2015 Small Area Income & Poverty Estimates, U.S. Department of Commerce, Economics and Statistics Administration, 2013 Small Area Health Insurance Estimates, U.S. Department of Commerce, Economics and Statistics Administration, 2013 Mortality Statistics Database, U.S. Centers for Disease Control and Prevention, CDC Wonder, 1999-2013 National Health Interview Survey (NHIS), U.S. Centers for Disease Control and Prevention, 2013 National Center for Health Statistics, Behavioral Risk Factor Surveillance System (BRFSS), "Adult Self-Reported Current Asthma Prevalence Rate," 2012 Air Quality System (AQS) Air Quality and Ozone Data, U.S. Environmental Protection Agency, 2010-2012 CMS Hospital Outpatient Prospective Payment System (OPPS) and Provider of Service Files, 2013 CMS MEDPAR Hospital (National), 2013 Thompson Reuters Medicare Database, 2013 American Hospital Association Annual Survey Database, 2014 Boston Scientific Master Hospital List, 2014 (AAFA thanks Boston Scientific for their in-kind donation of asthma ER data for this annual report) © 2015-AAFA - Neither this report nor its contents may be reproduced or used for commercial purposes without permission, Updated 5/4/15

#### About QVAR®

QVAR® (beclomethasone dipropionate HFA) Inhalation Aerosol is used in the ongoing treatment of asthma as preventative therapy in patients five years of age or older. QVAR is also used for asthma patients who require systemic corticosteroid administration, where adding QVAR may reduce or eliminate the need for systemic corticosteroids.

#### Important Safety Information

- QVAR® does not replace quick-relief inhalers for sudden symptoms
- Do not use QVAR if you are allergic to beclomethasone dipropionate or any of the ingredients in QVAR.
- Do not use QVAR more often than it is prescribed. Do not stop taking QVAR abruptly without talking to your healthcare provider.
- QVAR may cause serious side effects, including:

o Fungal infections (thrush). Tell your healthcare provider if you have any redness or white-colored patches in your mouth or throat. Rinse your mouth after using QVAR to help prevent an infection in your mouth or throat

o Worsening asthma or sudden asthma attacks. After using your rescue inhaler, contact your healthcare provider right away if you do not get relief from your sudden asthma attacks o Decreased adrenal function. This potentially life-threatening condition can happen when you stop taking oral corticosteroid medicines and start using QVAR. Tell your healthcare provider right away about any symptoms such as: tiredness, weakness, nausea and vomiting, and dizziness or faintness

o Immune system effects or infection. Tell your healthcare provider about any signs or symptoms, such as: fever, pain, body aches, chills, feeling tired, nausea, or vomiting

o Increased wheezing right after QVAR use. Always have a rescue inhaler with you to treat sudden wheezing

o Serious allergic reactions. Stop using QVAR and call your healthcare provider or get emergency medical help right away if you get any of the following: hives; swelling of your lips, tongue, or face; rash; or breathing problems

- o Slowed growth in children. Children should have their growth checked regularly while using QVAR
- o Lower bone density. This may be a problem for people who already have a higher chance for this condition
- o Eye problems. If you have had glaucoma or cataracts in the past, you should have regular eye exams while using QVAR
- The most common side effects of QVAR include: headache, throat irritation, and sinus irritation.

#### Please see full Prescribing Information <u>www.qvar.com/Pl</u>

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit <u>www.fda.gov/medwatch</u>, or call 1-800-FDA-1088.



