



ASTHMA AND ALLERGY RISK FACTORS IN THE ST. LOUIS REGION

INTRODUCTION

Springtime in St. Louis means increased asthma and allergy symptoms for thousands of the region's citizens. An estimated 138,000 people suffer from asthma in the St. Louis metropolitan area and over 687,000 more suffer effects of allergies.

While asthma and allergies affect all segments of the population as a leading cause of work loss and chronic disease in America, this health problem is particularly severe for certain segments of our community. Among children ages five to 17, asthma is the leading cause of school absences from a chronic illness, and allergies are the most frequently reported chronic condition in children, limiting activities for more than 40 percent of them. In addition, African-American individuals are three times as likely to be hospitalized from asthma and three times as likely to die from the disease. The racial differences in prevalence, morbidity and mortality are highly linked with poverty, indoor allergens, lack of patient education and inadequate medical care.

In 2002, East West Gateway published the fourth edition of *Where We Stand*, which compared the St. Louis region and 34 peers¹ in relation to more than 100 social, economic, fiscal and physical variables. This issue of *Where We Stand Update* provides new information about how St. Louis compares with our peer regions on rankings relative to asthma and spring allergies. The analysis is based upon the annual findings of the Asthma and Allergy Foundation of America (AAFA), which ranks major metropolitan areas as Asthma and Allergy Capitals as part of the Foundation's public awareness campaigns.

WHAT IS ASTHMA?

According to AAFA, asthma is a disease in which the airways become blocked or narrowed. The effects are usually temporary, but cause shortness of breath, breathing distress and other symptoms. Triggers in the environment, including cold air, allergens (such as mold and pollen), tobacco smoke, exercise and certain viral infections, cause an asthma attack or episode. The medical community is not certain as to the instance or cause of asthma, although medical researchers have found that heredity and atopy (proneness to allergies) make it more likely that a person will develop asthma. Avoiding environmental triggers and acquiring the appropriate medications can reduce asthma episodes.

Asthma Rankings Peer Metros, 2004

1 St. Louis	86.4
2 Louisville	82.3
3 Memphis	82.1
4 Kansas City	82.0
5 Nashville	81.7
6 Pittsburgh	81.0
7 Milwaukee	80.7
8 Detroit	80.2
9 Indianapolis	79.7
10 Columbus	79.7
11 Philadelphia	78.5
12 Oklahoma City	78.1
13 New York	77.9
14 Minneapolis	77.3
15 Cincinnati	77.1
16 Baltimore	77.0
17 Phoenix	76.8
18 Charlotte	76.7
19 Atlanta	76.6
20 Washington DC	76.2
21 Cleveland	76.2
22 Chicago	75.3
Average	74.7
23 Boston	74.5
24 Dallas	70.9
25 Denver	70.7
26 Salt Lake City	70.2
27 Austin	68.8
28 San Antonio	68.5
29 Los Angeles	67.1
30 Houston	65.8
31 San Diego	65.7
32 Seattle	64.1
33 Portland	63.9
34 Miami	62.6
35 San Francisco	61.6

Source: Asthma and Allergy Foundation of America

Allergy Rankings Peer Metros, 2004

1 Atlanta	100.0
2 Louisville	93.6
3 Charlotte	92.9
4 St. Louis	91.0
5 Austin	88.9
6 Nashville	80.0
7 Dallas	78.5
8 Houston	77.7
9 San Antonio	77.5
10 Philadelphia	73.9
11 Memphis	72.4
12 Boston	69.4
13 Indianapolis	68.6
14 Kansas City	67.9
15 Minneapolis	67.3
Average	65.9
16 Baltimore	65.6
17 Oklahoma City	64.5
18 New York	64.0
19 Phoenix	63.3
20 Salt Lake City	62.5
21 Pittsburgh	61.5
22 Milwaukee	59.3
23 Detroit	58.3
24 Cincinnati	57.7
25 Columbus	56.5
26 Cleveland	55.9
27 Portland	55.2
28 San Francisco	55.1
29 Seattle	52.2
30 Denver	48.5
31 Chicago	47.7
32 San Diego	46.7
33 Washington DC	46.5
34 Los Angeles	43.0
35 Miami	42.4

Source: Asthma and Allergy Foundation of America



WHERE WE STAND IN ASTHMA

Using AAFA composite scores, staff at East-West Gateway ranked St. Louis and our 34 peer regions based on analysis of data from 15 individual factors in three primary groups—prevalence, risk and medical factors. In determining the level of risk factors, AAFA analyzed quantitative city and state outcomes data, including morbidity and mortality, from government and industry sources for the most recent 12-month period. Data about prevalence include: estimated asthma prevalence, self-reported prevalence and annual crude death rate for asthma. Data on risk factors include comprehensive annual pollen

measurements, average annual outdoor temperature, annual outdoor air quality, poverty rate, uninsured rate, inhaler access laws and public smoking laws. Finally, data regarding medical factors include: number of asthma rescue and controller medication prescriptions per patient, and number of Board Certified allergy, immunology, pulmonology and asthma specialists per capita.

Among the 35 metropolitan areas, St. Louis was number one in asthma rankings, achieving the highest composite score of 86.37 for the three factors. Of the three factors, St. Louis ranked 5th in prevalence, 1st in risk, and 10th in medical. Weights were applied to each factor and group of factors reflecting the relative importance of each factor's effect on the quality of life of asthma sufferers.

WHAT ARE ALLERGIES?

According to AAFA, allergies reflect an overreaction of the immune system to substances that usually cause no reaction in most individuals, triggering sneezing, wheezing, coughing and itching. Some allergic reactions can be severe and fatal. The most common allergic diseases are allergic rhinitis (hay fever), allergic asthma, sinusitis, food and drug allergies, and insect sting allergies. Allergies can be treated through medication, immunizations, by avoiding offending allergens, instituting environmental controls, or by relocation to an area where the allergen is not found.

WHERE WE STAND IN ALLERGIES

In 2004, AAFA ranked St. Louis and 34 of our peer regions for people with seasonal allergies as either spring or fall Allergy Capitals, based upon two groups of factors with two sub-factors in each group. The first group of factors—environmental—includes the average recorded pollen levels over a seven-year period and the duration of the peak season for the most offensive pollen types. The second factor—medical—includes the number of prescriptions per 100,000 population for antihistamines over the previous 12-month period and the current number of

Board Certified Allergists and Immunologists per 100,000 population. Weights were applied to each factor reflecting its importance as an indicator.

In the spring of 2004, St. Louis was 4th among our peer regions in allergy rankings, only after Atlanta, Louisville and Charlotte. The pollen level score for St. Louis was ranked at 1st, prescription score was ranked 8th, and allergist score was ranked 9th. However, in fall 2003, the pollen level score in St. Louis was ranked 8th, which brought our overall fall 2003 ranking to 7th.

THE REGION CAN MAKE A DIFFERENCE

While many factors influence the prevalence and severity of asthma and allergies, state and local governments can address several contributing factors at the regional level. The 2002 edition of *Where We Stand* ranked St. Louis according to several indicators associated with increased risk for asthma and allergies. The study reported that 14.1 percent of St. Louis residents aged birth to 64 were without health insurance, and 13.4 percent of children under age 18 were living in poverty. Moreover, St. Louis had 14 days of unhealthy air quality in 2000 as cited by the U.S. Environmental Protection Agency. By knowing *Where We Stand* in allergies and asthma, the region can begin to take positive steps towards reducing these and other risk factors.

FOR MORE INFORMATION

Asthma and Allergy Foundation of America
www.aafa.org
St. Louis Chapter
www.aafastl.org

Sources: Asthma and Allergy Foundation of America, U.S. Asthma Capitals, 2004
Asthma and Allergy Foundation of America, U.S. Allergy Capitals, 2004
Asthma and Allergy Foundation of America, U.S. Allergy Capitals, 2003

¹ Metropolitan areas were selected as our "peers" if they met one of two criteria: the area had a population of 950,000 or more and was within 500 miles of St. Louis, or the area had an economic function similar to that of the St. Louis region.



Gateway Tower
One Memorial Drive, Suite 1600
St. Louis, MO 63102-2451



EAST-WEST GATEWAY
Council of Governments

Creating Solutions Across Jurisdictional Boundaries