

Investment in research saves lives and money



facts about:

Asthma

Today:

- One in 12 Americans are living with asthma, an estimated 24 million people.*
- Asthma kills more than 3,500 Americans each year.*
- African-Americans with asthma are 220% more likely to be hospitalized and 180% more likely to die as a result of asthma than white asthma patients.*+
- Asthma is most prevalent in children ages 5 to 14, affecting nearly 10% of that age group.*
- Globally, 300 million individuals are living with asthma.□
- Between 2001 and 2011, the prevalence of asthma increased by 28%.*
- Annually, nearly half of the individuals diagnosed with asthma suffered from an asthma attack, a sudden and dangerous worsening of asthma symptoms.*

"If you think research is expensive, try disease."

- Mary Lasker 1901-1994

The Cost:

- The total economic burden of asthma in the U.S. is \$56 billion annually.*
- A single hospital stay caused by asthma-related complications cost on average \$6,600.‡
- Asthma aggravated by living close to roadway pollution costs Los Angeles County more than \$441 million in a single year in health care costs and lost productivity.^

* CENTERS FOR DISEASE CONTROL AND PREVENTION. <WWW.CDC.GOV>
 + AMERICAN LUNG ASSOCIATION. <WWW.LUNG.ORG>
 ‡ BARRETT, MS. ET. AL. H CUP AHRQ 2014; 169.
 ^ BRANDT, S. ET. AL. J ALLERGY CLIN IMMUNOL 2014; 134(5): 1028-1035.
 □ NATIONAL INSTITUTES OF HEALTH <WWW.NIAID.NIH.GOV>

SAVING LIVES

SAVING MONEY

HOW RESEARCH SAVES LIVES:

- Between 1999 and 2009, asthma-related fatalities dropped by 27% in part due to an increased understanding of disease progression and symptoms, and improved care for those living with this chronic condition.□
- Research has emphasized the importance of dose counting inhalers. Studies have concluded inhalers that display the remaining amount of medication in the device can reduce emergency room visits by 55%, by providing information about whether the individual is receiving enough medication and indicating when it is nearly empty.†
- Researchers analyzing the effects of polluted air provided the necessary data to support the U.S. Environmental Protection Agency (EPA) in passing the Mercury and Air Toxics Standard in 2011, which is estimated to save up to 11,000 lives and prevent 130,000 asthma attacks annually.*

HOW RESEARCH SAVES MONEY:

- Peer counseling over the phone for parents with asthmatic children led to a 42% decrease in emergency room visits and a 62% reduction in hospitalizations over the course of a year. Cost-effectiveness researchers estimate for every \$1 Medicaid invests in this outreach program, they will save \$3 in health care costs.‡
- Public health researchers at Columbia University estimate the economic burden of air pollution will fall by \$1 trillion over 20 years thanks to the emissions reductions required by EPA's Toxics Rule. These savings are in part due to a projected reduction in the incidence of childhood asthma and emergency room visits.^

perspective:



NAME: Katelyn Winders
 AGE: 12
 CONDITION: Asthma

Tonya Winders will never forget the quiet summer Sunday afternoon that turned terrifying in 2008. Her 5-year-old daughter, Katelyn, was excited that she had spent the day at a friend's house playing with kittens. After dinner, Tonya noticed Katelyn coughing and as the night progressed her symptoms began to worsen. Around midnight, Tonya awoke to her daughter coughing and gasping for air. Katelyn was rushed to the emergency room at Vanderbilt where she was stabilized and diagnosed with asthma.

Since that scary night, Katelyn's health has greatly improved. She is now an active teenage girl who loves to play basketball, ride bikes and hang out with friends. She is diligent about taking her controller medications, but dreams of a day when she may no longer need them.

Tonya, now CEO of Allergy & Asthma Network, says it was this experience that has resulted in her family becoming passionate supporters of medical research. Tonya explains, "It is empowering for patients like Katelyn to advocate for themselves and for others to advance our understanding and treatment of asthma." Tonya believes research is the key to a greater understanding of why some people respond to standard care and others do not. "Research is the path forward to identify the right treatment, for the right patient at the right time---truly personalized medicine," says Tonya, "Research holds hope for the 24 million Americans living with asthma."

* UNITED STATES ENVIRONMENTAL PROTECTION AGENCY <WWW.EPA.GOV/MAT>
 + AMERICAN COLLEGE OF ALLERGY, ASTHMA AND IMMUNOLOGY, 2013. <ACAAI.ORG>
 ‡ GARBUTT, J. ET. AL. J ALLERGY AND CLIN IMMUNOL, 2014.
 ^ COLUMBIA UNIVERSITY'S MAILMAN SCHOOL OF PUBLIC HEALTH, 2011.
 □ AMERICAN LUNG ASSOCIATION. <WWW.LUNG.ORG>

facts about: } Asthma

Hope for the Future:

- ⚡ A team of University of Wisconsin-Madison researchers developed a handheld device that is able to diagnose asthma using a single drop of blood. This low cost and easy-to-use test could help diagnose the disease in pre-symptomatic individuals, allowing them to begin treatment much earlier.*
- ⚡ Two patents resulting from research funded by the National Institutes of Health have just been filed by researchers at the University of Southern Carolina for a novel cleaning method. The method, "freeze clean," reduces home allergens and irritants using carbon dioxide, and greatly reduces the incidence of asthma attacks in children and high risk individuals.‡
- ⚡ In a collaboration between the Dana-Farber Cancer Institute, Harvard Medical School, Janssen Research and Keck School of Medicine at the University of Southern California, researchers identified a novel way to target a subset of immune cells that are thought to cause asthma, creating the potential for effective new approaches to asthma treatment.⁴

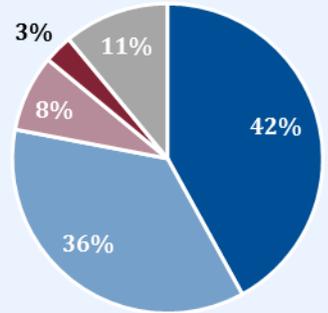
*UNIVERSITY OF WISCONSIN-MADISON, 2014.

‡UNIVERSITY OF SOUTHERN CAROLINA, 2014.

⁴UNIVERSITY OF SOUTHERN CALIFORNIA- HEALTH SCIENCES, 2015.

National Poll: Health promotion and prevention research should be a priority

Compared with other policy areas, how high a priority should Congress make health promotion and disease prevention research?



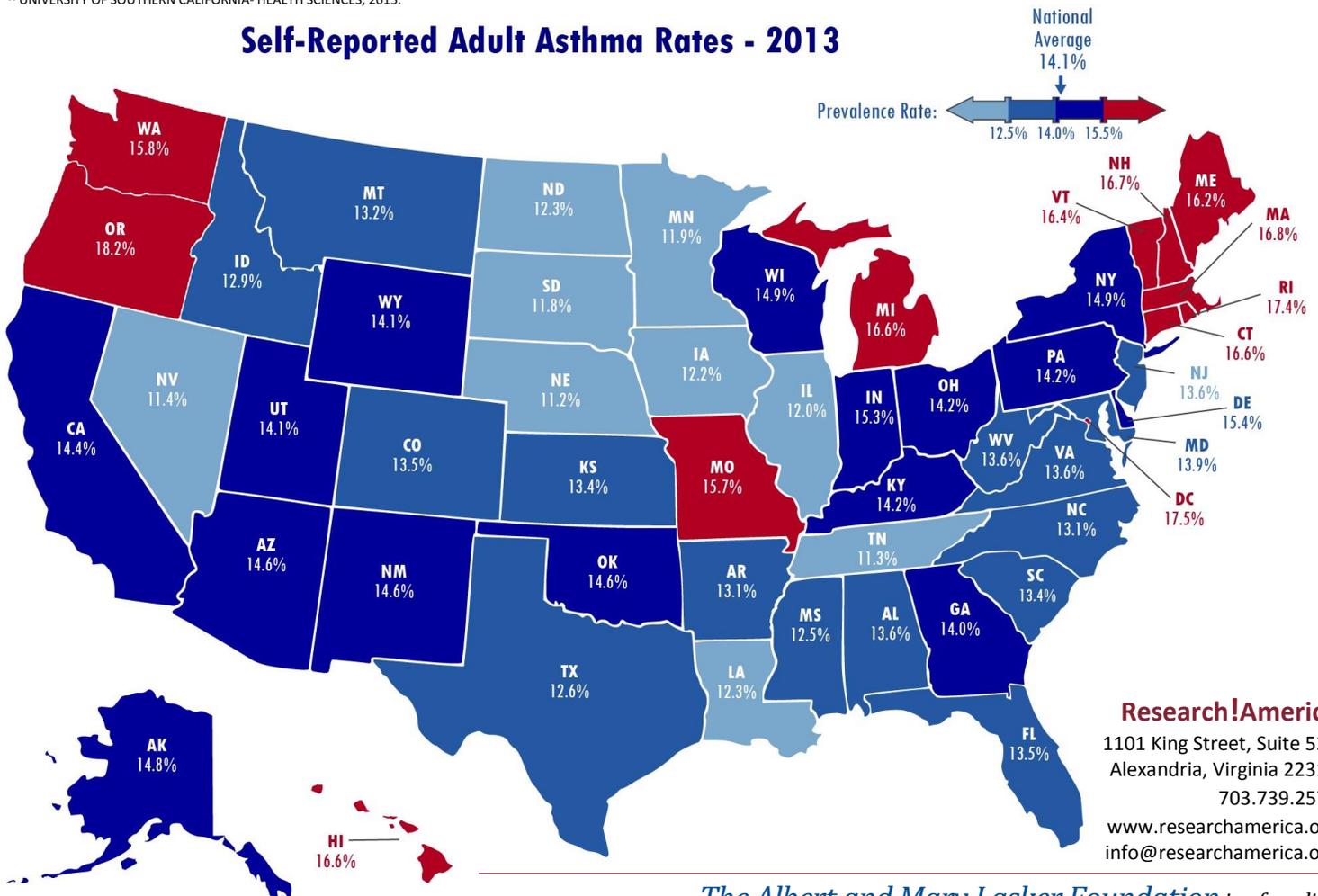
- A very high priority
- A somewhat high priority
- A somewhat low priority
- A very low priority
- Not sure

A RESEARCH!AMERICA POLL CONDUCTED IN PARTNERSHIP WITH ZOGBY ANALYTICS IN JANUARY 2016.

The Bottom Line:

The social and economic costs of asthma are growing in the U.S., disproportionately affecting African Americans and children. While research has provided many asthmatics with significant symptom relief, tens of millions of Americans still suffer asthma attacks every year. Research into prevention, treatment and symptom control can save lives and greatly decrease the burden of this chronic disease.

Self-Reported Adult Asthma Rates - 2013



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The Albert and Mary Lasker Foundation is a founding partner in this series of fact sheets. www.laskerfoundation.org

SOURCE: THE HENRY J KAISER FAMILY FOUNDATION, CENTERS FOR DISEASE CONTROL AND PREVENTION