

**EXPERTS: CHILDHOOD ASTHMA “EPIDEMIC” AMONG
INNER-CITY YOUTHS SEEN IN ABSENCE OF STEPS
TO CURB GLOBAL WARMING, FOSSIL FUEL USE**

*Groups Warn of Growing Health Toll on “Most Vulnerable” Americans;
Rising Heat and City Smog Work Together to Trigger Surge in Asthma, Allergies.*

WASHINGTON, D.C.///April 29, 2004///Millions of poor and minority children in America’s cities likely will suffer even higher rates of asthma as the result of a “powerful one-two punch” of higher levels of pollen and changes in the types of molds spurred by global warming, along with unhealthy urban air masses caused by the burning of fossil fuel by cars, trucks and buses, according to a warning issued today by Harvard researchers and the American Public Health Association (APHA).

The problem is particularly grave since asthma among pre-school children already is at epidemic levels, having grown 160 percent between 1980-1994, more than twice the rate (75 percent) for the overall U.S. population, according to *“Inside the Greenhouse: The Impacts of CO₂ and Climate Change on Public Health in the Inner City,”* a report released by the Center for Health and the Global Environment at the Harvard Medical School. The highest incidence of asthma cases already is found among low-income and African-American toddlers, a large share of whom live in urban areas.

The Harvard report was made public during a news event today organized by the Results for America (RFA) project of the Civil Society Institute. The report states: “Rising levels of carbon dioxide (CO₂), in addition to trapping more heat, promote pollen production in plants, increase fungal growth, and alter species composition in plant communities by favoring opportunistic weeds (like ragweed and poison ivy). Other emissions from burning fossil fuels in cars, trucks and buses form photochemical smog that causes and exacerbates asthma, while diesel particulates help deliver and present pollen and mold allergens to the immune system in the lungs. The combination of air pollutants, aeroallergens, heat waves and unhealthy air masses – increasingly associated with a changing climate – causes damage to the respiratory systems, particularly for growing children, and these impacts disproportionately affect poor and minority groups in the inner cities.”

Christine Rogers, Ph.D., senior research scientist, Exposure, Epidemiology and Risk Program at the Harvard School of Public Health, said: **“This is a real wake-up call for people who mistakenly think global warming is only going to be a problem way off in the future or that it has no impact on their lives in any meaningful way. The problem is here today for these children and it is only going to get worse. Poor and minority children in urban centers have the greatest incidence of asthma, putting them at the greatest risk of suffering the ill effects of this CO₂ generated increase in allergenic pollen. These children get hit with a powerful one-two punch: exposure to the worst air quality problems and the additional allergen exposure arising from global warming. In addition, global warming is causing pollen seasons to arrive earlier in the spring.”**

Dr. Georges Benjamin, executive director, American Public Health Association, said: **“All Americans living in our cities are at increased risk of respiratory disease due to greater concentrations of air pollution – soot and ozone – in urban environments. But it’s our children who are at greatest risk. And those who are disproportionately at risk are low-income, minority children who already suffer from an epidemic of asthma, the most common chronic disease in children. This is a public health issue and it is a health disparities issue. Low-income communities receive less treatment for environmental disease because they have less access to health care, yet are often at much greater risk from their environment.”**

Dr. Paul R. Epstein, associate director, Center for Health and the Global Environment, Harvard Medical School, said: **“The good news is that we already have the answers about what to do. Local initiatives on individual, organizational, city, state and regional levels can go a long way towards making things better. Converting from fossil fuel use to greater energy efficiency, hybrid vehicles, alternative sources, ‘green buildings,’ and improved public transport would reduce CO₂ levels now altering plant growth and help to stabilize the climate. A properly financed clean energy transition would produce many new industries, new jobs and boost international trade. The clean energy transition can become the engine of growth for the 21st century, helping to alleviate poverty and initiate a more equitable, healthy and sustainable form of development.”**

Civil Society President Pam Solo said: **“Americans need to recognize that the ill effects of global warming are very real and that they already are here. It is a national scandal that the most vulnerable populations in America – poor and minority inner-city children – pay such a terrible and unnecessary price. In the absence of action from Washington, it is incumbent on local communities and states to take the best of the available solutions to reduce fossil fuel consumption and to promote the use of cleaner energy and more efficient technologies. This kind of change will not take place unless citizens inform themselves about the problem, the best solutions and then start working for change where they live.”**

BACKGROUND:

Asthma is a complex and serious disease characterized by lung inflammation resulting in shortness of breath, or wheezing. It commonly begins in childhood, and frequently requires doctor visits, medications, emergency visits or hospitalizations. According to the new report, the U.S. Centers for Disease Control and Prevention (CDC) estimates that the prevalence of asthma in the US adult population is approximately 7.5 percent (16 million). The estimated cost in the U.S. of treating asthma in those younger than 18 years of age is \$3.2 billion per year.

Allergic diseases are the sixth leading cause of chronic illness in the U.S., affecting roughly 17 percent of the population, and costing the health care system about \$18 billion

annually. Approximately 40 million Americans suffer from allergic rhinitis (hay fever), largely in response to common aeroallergens, resulting in 3.8 million lost days of work and school. The report also examines a variety of other respiratory illnesses, infectious diseases (including West Nile Virus), heat stress and heart disease.

Why do children in cities suffer the most?

The new report states: “Combustion of fossil fuels – oil, coal and natural gas – is responsible for air pollution and climate change, and air quality is a particular problem for urban centers worldwide. Traffic patterns and automotive exhaust, power plants, airports and industrial emissions are the primary sources, while wind patterns can bring in pollution and unhealthy air masses originating in other regions.” Air pollution in highly populated areas can compound the impacts of airborne allergens. The impacts of air pollution can also be compounded by extreme weather events, whose intensity and frequency is increasing as climate changes. These include more heatwaves, drought-driven fires, floods and the impacts of warming are exacerbated by “the heat island effect” generated in concrete cities with inadequate green space.

Rogers explained: **“Ragweed in vacant lots and other disturbed areas, and the pollen of some trees are stimulated by increased carbon dioxide. Higher levels of CO₂ may also stimulate some types of fungi. In addition, humidity, heavy rain and floods associated with climate change may foster mold growth in homes and workplaces.”**

Dr. Epstein added: **“Photochemical smog – ground-level ozone – is a product of reactions among tailpipe emissions, and the chemical reaction is accelerated during heatwaves and, over time, significantly intensified by climate change.”**

ABOUT THE GROUPS:

The Center for Health and the Global Environment (<http://www.med.harvard.edu/chge/>) at the Harvard Medical School was founded in 1996 at the Harvard Medical School to expand environmental education at medical schools and to further investigate and promote awareness of the human health consequences of global environmental change.

The American Public Health Association (<http://www.apha.org>) is the oldest and largest association of public health professionals in the world representing 50,000 members from over 50 occupations in public health. APHA works to improve the public's health, promote the scientific and professional foundation of public health practice and policy, advocate the conditions for a healthy society, emphasize prevention and enhance the ability of members to promote and protect environmental and community health.

Results for America (<http://www.ResultsForAmerica.org>) is a project of the Civil Society Institute, which is based in Newton, Massachusetts. The mission of CSI is to serve as a catalyst for change by creating problem-solving interactions among people, and between communities, government and business, that can help to improve society. (Visit Civil

Society Institute on the Web at <http://www.CivilSocietyInstitute.org>.) RFA seeks to shape and tap the tremendous amount of community-level knowledge, experience and innovative action that could solve America's problems in four key areas, including "Clean Air, Clean Energy, Bright Future." RFA supports reducing our debilitating dependence on oil and fossil fuels and making sensible investments in alternative energy sources.

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EDITOR'S NOTE: The report and a related news release are available on the Web at <http://www.ResultsForAmerica.org/>. As of 3 p.m. EDT on April 29, 2004, a streaming audio replay of a related news event will be available at the same URL.