



# Asthma

## ASTHMA FACTS IN BLACK AND WHITE AND GREEN

### The Truth about African American Health and Pollution

The National Black Environmental Justice Network (NBEJN] wants you to know there is a connection between many of the chronic illnesses affecting our communities - such as asthma, lead poisoning and cancer - and our exposure to pollution. Numerous research studies have tied air pollution to asthma attacks, cardiovascular and respiratory illness, cancer, birth defects, and even death.<sup>1</sup>

**Table 1**

**Health Effects - Selected Hazardous Air Pollutants**

| Pollutant           | Carcinogen | Lungs | Other Organs |
|---------------------|------------|-------|--------------|
| Carbon Monoxide     |            | X     | X            |
| Lead                | X          | X     | X            |
| Nitrogen Oxide      |            | X     | X            |
| Ozone               |            | X     | X            |
| Particulate Matter  | X          | X     | X            |
| Sulfur Dioxide      |            | X     | X            |
| VOCs                | X          | X     | X            |
| PAHs                | X          | X     | X            |
| Diesel Emissions    | X          | X     | X            |
| Coke Oven Emissions | X          | X     | X            |
| Benzene             | X          | X     | X            |

A few air pollutants, Carbon Monoxide (CO), Lead (Pb), Nitrogen Dioxide (NO<sub>2</sub>), Ozone (O<sub>3</sub>), Particulate Matter (PM), and Sulfur Dioxide (SO<sub>2</sub>) called Criteria Air Pollutants, are common throughout the United States. VOCs = volatile organic compounds, such as benzene. PAHs = polycyclic aromatic hydrocarbons, such as Benzo(a)pyrene.

Source: Environmental Defense Chemical Scorecard ([www.scorecard.org](http://www.scorecard.org))

African Americans, Asian Americans, Latinos, indigenous peoples and the poor bear a disproportionate burden of America's environmental problems. Government agencies and industries overwhelmingly locate polluting facilities in communities of color and engage in hazardous and unsustainable development, over the protests of residents and in disregard of safer and more environmentally protective alternatives.

Consequently, the people who live in these communities are inundated with significant environmental and health hazards related to toxic waste sites, mining operations, incinerators, oil exploration, and other harmful developments. In the United States, approximately 60% of African Americans

live in communities with uncontrolled toxic waste sites. Three (3) out of five (5) of the largest hazardous waste landfills in the United States are located in predominantly African American or Latino communities.<sup>2</sup> As a consequence, people of color have a higher incidence of cancer, lead poisoning, respiratory illnesses and a host of other serious and fatal environmentally-related health problems.

Unfortunately, the medical establishment and the existing public health paradigm do not emphasize the association of pollution. In an effort to combat these realities, NBEJN has launched the Healthy and Safe Communities Campaign to raise awareness, advance public policy initiatives and build the capacity of African American organizations to fight for our health and the health of our children, families, and neighborhoods.

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## Asthma in the U.S

- Asthma is one of the nation's most common and costly diseases.<sup>3</sup> It affects more than 22 million Americans, including almost 6.1 million children.<sup>4,5</sup>
- According to a 2002 article in "The Futurist", asthma in the United States increased by 75% during 1980-1994, according to the latest available figures at the National Institute of Allergy and Infectious Diseases (NIAID).<sup>6</sup>
- Asthma is a leading cause of chronic illness among children and poses a special danger to the health and lives of minority children in the U.S.<sup>7</sup>
- Asthma accounts for one third of all pediatric emergency room visits in the United States.<sup>8</sup>
- In 2002, there were 4,261 deaths from asthma.<sup>9</sup>
- The death rate for children 19 years and younger increased by 78% between 1980 and 1993.<sup>10</sup>
- Asthma is one of the leading causes of school absenteeism accounting for 14.6 million lost school days in 2002.<sup>16</sup>
- In 1990, costs related to asthma were estimated to total \$6.2 billion. In 2004, the annual direct health care cost of asthma was approximately \$11.5 billion, and indirect costs another \$4.6 billion, for a total of \$16.1 billion dollars.<sup>17</sup>

## Pollution and Asthma

- Acidic air particles, sulfur dioxide, and overexposure to ozone - forms of air pollution that are far more prevalent in minority communities—have been linked to increases in patients' medication use, emergency room visits and hospital admissions for asthma.<sup>18</sup>
- With respect to the rise of asthma—particularly pediatric asthma—in developed nations, the World Health Organization (WHO) blames outdoor air pollution resulting from traffic and industry for exacerbating the illness.<sup>19</sup>
- There is growing evidence that pollution, both outdoor and indoor, and limited access to quality health care play a major role in asthma.<sup>20</sup>
- Environmental interventions, in combination with medical management, can significantly reduce the burden of asthma. Although much has been learned in recent years about how to prevent asthma, this information still needs to be put into sound public health practice.<sup>21</sup>
- Improved air quality has been linked to a drop in acute asthma cases.<sup>22</sup>
- During the Atlanta Olympic Games, reduced downtown traffic resulted in a 27.9% drop in ozone pollution levels. During the same time period, asthma-related medical emergencies among children dropped more than 41.6%, according to researchers whose findings were published in the Journal of the American Medical Association in February 2001.<sup>23</sup>

## The Asthma Epidemic in Black America

- The asthma rate among African Americans is 38% higher than whites.<sup>11</sup>
- Although African Americans represent 12.7% of the U.S. population, they account for 26% of asthma deaths.<sup>12</sup>
- African American children are five times more likely to die from asthma than white children.<sup>13</sup>
- African Americans are three times more likely to be hospitalized, five times more likely to seek care for asthma at an emergency room, and three times as likely to die from asthma as their white counterparts.<sup>14</sup>

## The Cost of Asthma

- While the World Health Organization (WHO) notes that asthma drains health-care resources through treatment, long-term or permanent medication costs, and emergencies, there are also indirect costs, including missed school days, weaker academic performance and poorer attention spans.<sup>15</sup>

**Table 2**

| Disparities....   |  |
|---|--|
| <ul style="list-style-type: none"> <li>✦ African Americans represent 12.7 % of the U.S. population; they account for 26% of all asthma deaths.</li> <li>✦ African Americans were hospitalized for asthma at more than three times the rate of Whites (32.9 per 10,000 vs. 10.3 per 10,000) in 2001.</li> <li>✦ The asthma prevalence rate in African Americans was almost 38% higher than in Whites in 2002.</li> <li>✦ African American females have the highest prevalence rates (105 per 1,000) of any group.</li> </ul> |  |

Source: American Lung Association, Lung Disease Data in Culturally Diverse Communities: 2005. Asthma: Racial Disparity

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**Work with us!** For more information on the National Black Environmental Justice Network and the Healthy and Safe Communities Campaign, contact:

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