

# CLIMATE CHANGE AND CHILDREN'S HEALTH

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We have an obligation to our children to protect them from the carbon pollution that is fueling climate change and its worst impacts. Children are among the most vulnerable to climate change especially from extreme heat events, widespread disease and increased air pollution, especially ozone.

## THE PROPOSED CLEAN POWER PLAN

On June 2, 2014, the U.S. Environmental Protection Agency, under President Obama's Climate Action Plan, proposed a commonsense plan to cut carbon pollution from power plants. The science shows that climate change is already posing risks to our health and our economy. This proposal will maintain an affordable, reliable energy system, while cutting pollution and protecting our health and environment now and for future generations.

The proposed Clean Power Plan will cut hundreds of millions of tons of carbon pollution and hundreds of thousands of tons of harmful particle pollution, sulfur dioxide and nitrogen oxides. Together these reductions will provide important health protections to the most vulnerable, such as children and older Americans.

## CLIMATE CHANGE NEGATIVELY IMPACTS CHILDREN'S HEALTH

**Climate Change Affects Children Differently Than Adults.** "Children are different from adults in how they interact with their environment and how their health may be affected by these interactions. Children's body systems are still developing, some through the second decade of life." [EPA, Climate Change and the Health of Children, accessed [12/13/13](#)]

**Climate Health Risks for Children.** Climate change is projected to harm human health by increasing ground-level ozone and/or particulate matter in some locations. Ground level ozone, a key component of smog, is associated with many health problems, such as diminished lung function, increased hospital admissions and emergency room visits for asthma, and increases in premature deaths.

Climate change, resulting in more frost-free days and warmer seasonal air temperatures, can also contribute to shifts in flowering time and pollen initiation from allergenic plant species, and increased CO<sub>2</sub> by itself can elevate production of plant-based allergens. Higher pollen concentrations and longer pollen seasons can increase allergic sensitizations and asthma episodes, and diminish productive work and school days. To the extent that increased pollen exposures occur, patients and their physicians will face increased challenges in maintaining adequate asthma control.

Children, primarily because of physiological and developmental factors, will disproportionately suffer from the health effects of climate change. [U.S. Global Change Research Program, National Climate Assessment, [2014](#)]

## MILLIONS OF CHILDREN IMPACTED BY OZONE NATIONWIDE

**33 Million Children Live in Areas with Unhealthy Levels of Ozone.** In 2012, approximately 133 million people, including 33 million children lived in counties with ozone levels higher than the health-based standards set by EPA. [EPA, National Air Trends Data, 2012, US Census Bureau, 2010 Census]

**Preparation And Planning Can Help Mitigate The Impact Of Climate Change On Children.** According to the EPA, “While the effects of climate change may pose unique and increased risks to children’s health, these risks can be reduced through preparation, planning, and surveillance by our public health agencies at federal, state and local levels.” [EPA, Climate Change and the Health of Children, accessed [12/13/13](#)]

## THE NATIONAL CLIMATE ASSESSMENT: CLIMATE CHANGE DISPROPORTIONATELY AFFECTS LOW INCOME COMMUNITIES AND THE MOST VULNERABLE

Certain groups of people are more vulnerable to the range of climate related impacts, including the elderly, children, the poor, and the sick. Others are vulnerable because of where they live, including those in floodplains, coastal zones, and some urban areas. Improving and properly supporting the public health infrastructure will be critical to managing the potential health impacts of climate change.

Climate change is also increasing the risks of respiratory stress from poor air quality, heat stress, and the spread of food-borne, insect-borne, and waterborne diseases. Climate change is projected to harm human health by increasing ground-level ozone and/or particulate matter in some locations. Ground level ozone, a key component of smog, is associated with many health problems, such as diminished lung function, increased hospital admissions and emergency room visits for asthma, and increases in premature deaths. [U.S. Global Change Research Program, National Climate Assessment, [2014](#)]

## THE PROPOSED CLEAN POWER PLAN: SIGNIFICANT CLIMATE AND PUBLIC HEALTH BENEFITS FOR ALL AMERICANS

Climate change is not just a problem for the future – we are facing its impacts today.

Power plants are the largest concentrated source of carbon dioxide emissions in the United States, making up roughly one-third of all domestic greenhouse gas emissions. While the United States has limits in place for the level of arsenic, mercury, sulfur dioxide, nitrogen oxides, and particle pollution that power plants can emit, there are currently no national limits on carbon pollution levels.

Nationwide, by 2030, the Clean Power Plan will help cut carbon pollution from the power sector by approximately 30 percent from 2005 levels. It will also reduce pollutants that contribute to the soot and smog that make people sick by over 25 percent.

These reductions will lead to climate and health benefits worth an estimated \$55 billion to \$93 billion in 2030. This includes avoiding up to 6,600 premature deaths and 150,000 asthma attacks in 2030.

From the soot and smog reductions alone, for every dollar invested through the Clean Power Plan—American families will see up to \$7 in health benefits.

This flexible proposal protects children and other vulnerable Americans from the health threats posed by a range of pollutants and will move us toward a cleaner, more stable environment for future generations while ensuring an ongoing supply of the reliable, affordable power needed for economic growth.

\* For more information please visit [epa.gov/cleanpowerplan](http://epa.gov/cleanpowerplan)

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