

EPA's CLEAN POWER PLAN, CLIMATE CHANGE AND CHILDREN'S HEALTH

Carbon pollution threatens the health of Americans and our environment. We are already seeing an increase in temperatures, extreme weather events, drought, flooding, and sea level rise in areas across the United States, and these impacts are expected to get worse as carbon pollution in our atmosphere increases. On August 3, 2015, the U.S. Environmental Protection Agency (EPA), as part of President Obama's Climate Action Plan, finalized a historic plan to cut carbon pollution from power plants—the largest source of carbon pollution in the United States. EPA's Clean Power Plan will maintain an affordable, reliable energy system, while cutting pollution and protecting public health and the environment now and for future generations. By acting on climate now, we are fulfilling a moral obligation to our children and grandchildren to leave them with a healthier, more stable planet.

IMPACTS OF CLIMATE CHANGE ON CHILDREN'S HEALTH

Climate change poses serious threats to the health of America's children. Children eat, drink, and breathe more per body weight than adults, and their body systems are still developing. In addition, they often spend more time outdoors. For these reasons, children disproportionately suffer from the effects of heat waves, air pollution, infectious illness, and trauma resulting from extreme weather events. These impacts can include both short-term and long-term effects.

Children are among those most vulnerable to extreme heat events. Nationwide, unusually hot summer days have become more common over the last few decades. Without global action on climate change, a recent EPA analysis found that the average number of extremely hot days in the U.S. is projected to more than triple by 2100. [EPA, [Climate Change Indicators in the United States](#), 2014; EPA, [Climate Change in the United States: Benefits of Global Action](#), 2015]

Many children are already at risk from high levels of air pollution. Climate change is expected to lead to increased air pollution concentrations in densely-populated areas, contributing to asthma attacks and other respiratory issues. In 2013, approximately 75 million people lived in counties with air pollution levels higher than the health-based standards set by EPA. [EPA, National Air Trends Data, 2013; US Census Bureau, 2010 Census] Exposures to high levels of air pollution can result in adverse health effects in children, including shortness of breath, temporary decreases in lung function, and lower respiratory tract infections, and may cause new cases of asthma to develop among children. [EPA, [Integrated Science Assessment of Ozone and Related Photochemical Oxidants](#), 2013; EPA, [America's Children and the Environment: Third Edition](#), 2013]

Climate change may lead to increased allergic sensitizations, including for children. Climate change can also contribute to shifts in flowering time and pollen initiation from allergenic plant species, and increased carbon dioxide (CO₂) by itself can elevate production of plant-based allergens. Higher pollen

concentrations and longer pollen seasons can increase allergic sensitizations and asthma episodes, and reduce productive school days. [U.S. Global Change Research Program, National Climate Assessment, [2014](#)]

Climate change is one of a number of factors driving the spread of Lyme disease. The life cycle and prevalence of deer ticks are strongly influenced by temperature, and warming temperatures can increase the range of suitable tick habitats. In the United States, the incidence of Lyme disease in the general population has approximately doubled since 1991. Young boys, between the ages of five and nine, have been reported to have the highest annual incidence. [EPA, [Climate Change Indicators in the United States](#), 2014; CDC, [Confirmed Lyme Disease Cases by Age and Sex—United States](#), 2001-2010]

THE CLEAN POWER PLAN: SIGNIFICANT CLIMATE AND PUBLIC HEALTH BENEFITS

The Clean Power Plan achieves significant reductions in carbon pollution from power plants while advancing clean energy innovation, development and deployment. It secures and helps advance current trends in the power sector towards increased use of low- and no-carbon electricity generation and greater use of energy efficiency, and does it in ways that will preserve affordability for consumers and continue U.S. leadership in addressing climate change. States and businesses have already charted a course toward cleaner, more efficient power, and the Clean Power Plan builds on their progress.

The transition to clean energy is happening faster than anticipated. This means carbon and air pollution are already decreasing, improving public health each and every year. The Clean Power Plan accelerates this momentum, putting us on pace to cut this dangerous pollution to historically low levels in the future. When the Clean Power Plan is fully in place in 2030, carbon pollution from the power sector will be 32 percent below 2005 levels, securing progress and making sure it continues.

The transition to cleaner sources of energy will better protect Americans from other harmful air pollution, too. By 2030, emissions of SO₂ from power plants will be 90 percent lower compared to 2005 levels, and emissions of NO_x will be 72 percent lower. Because these pollutants can create dangerous soot and smog, the historically low levels mean we will avoid thousands of premature deaths and have thousands fewer asthma attacks and hospitalizations in 2030 and every year beyond.

Within this larger context, the CPP itself is projected to contribute significant pollution reductions, resulting in important benefits.

The Clean Power Plan will:

- Cut hundreds of millions of tons of carbon pollution and hundreds of thousands of tons of harmful soot- and smog-forming particle pollution that makes people sick. Together these reductions will result in significant near-term public health benefits, especially for the most vulnerable citizens.
 - From the soot and smog reductions alone, for every dollar invested through the Clean Power Plan—American families will see up to \$4 in health benefits in 2030.
 - The Clean Power Plan will significantly improve health by avoiding each year:

- 3,600 premature deaths
 - 1,700 heart attacks
 - 90,000 asthma attacks
 - 300,000 missed workdays and schooldays
- Put our nation on track to cut carbon pollution from the power sector by 32 percent by 2030 while maintaining electric system reliability and affordable electricity.
 - In addition to helping make our electric system cleaner, the Clean Power Plan will make electricity more affordable in the long run. EPA’s analysis of impacts on electricity bills shows that Americans are expected to save over \$80 annually on their utility bills by 2030.
 - Reduce CO₂ emissions from power plants—an essential step towards reducing the impacts of climate change and providing a more certain future for our environment, our health and future generations.
 - By acting on climate now, we are fulfilling a moral obligation to our children and grandchildren to leave them with a healthier, more stable planet.
 - Change the international dynamic and leverage international action. Climate change is a global challenge and requires global action. When the U.S. leads, other nations follow.

GET INVOLVED

Public engagement was essential throughout the development of the Clean Power Plan, and EPA will continue to engage with communities and the public during the rule’s implementation. The EPA will also be conducting a robust outreach effort for communities throughout the comment period for the federal plan.

To ensure opportunities for communities to continue to participate in decision making, EPA will be providing training and resources throughout the implementation process. EPA is also requiring that states demonstrate how they are actively engaging with communities in the formulation of state plans developed for the Clean Power Plan. To learn more please visit the Clean Power Plan Portal for Communities at www2.epa.gov/cleanpowerplan/clean-power-plan-toolbox-communities.

LEARN MORE

For more information on the Clean Power Plan, visit www.epa.gov/cleanpowerplan.

For tips on how you can reduce your carbon footprint, visit www.epa.gov/climatechange/wycd/.

Visit our Students’ Guide to Global Climate Change www.epa.gov/climatestudents.

