

The Impact of Air Pollution of Human Health

By Sam Glickman

The data is stark. Over 90 percent of the world's population lives in places where air quality fails to meet the World Health Organization's guidelines. In 2018, the American Lung Association reported that roughly 41 percent of the U.S. population lives in counties with unhealthy levels of air quality. These startling statistics indicate a growing global health concern. The widespread impact of air pollution on human health is causing governments and healthcare agencies across the world to sound the alarm.

The harmful effects of air pollution are well-documented throughout history. The U.S. experienced several major health calamities in the twentieth century due to air pollution. One such event occurred in 1948, when a thick black smog blanketed the steel town of Donora, Pennsylvania. The air pollutants from the factories became trapped by a pocket of warm air, and the town was steeped in a toxic fog for five days. Nearly half of the town's 14,000 citizens became seriously ill, and 20 people died. In the aftermath of this event, air pollution emerged as a public health issue.

In 1963, the U.S. Congress enacted the first Clean Air Act in response to growing public concern. All 50 states soon established their own air pollution programs to help reduce ambient pollution. Several additional federal amendments have been adopted since then in an effort to protect the nation's air quality. Despite these efforts, the negative effects of air pollution on people have become increasingly evident.

Human Health Effects

Air pollution is now a global public health matter. The WHO reports that 4.2 million deaths worldwide are the result of exposure to outdoor air pollution every year. This includes roughly 600,00 children. These deaths are caused by a variety of serious conditions associated with air pollution, including lung cancer, strokes, respiratory infections, and heart disease. Exposure to ambient pollution is also harmful to pregnant women. The resulting negative birth outcomes can include low-birth weight and pre-term birth.

Recent evidence is establishing new connections between air pollution and a variety of health conditions. For instance, current research suggests that air pollution can affect the neurological development of children. In 2019, the Journal of the American Medical Association published a separate study that links higher levels of air pollution to mental health issues in teenagers. As new evidence emerges, the adverse health effects from air pollution become clearer.

Urban Air Pollution

Experts agree that urban environments are particularly susceptible to unhealthy air quality. Highly populated regions simply have more sources of pollution than most rural areas. The Environmental Protection Agency reports that cars cause 75 percent of carbon monoxide pollution in the U.S. EPA research also suggests that people who live and work near major

roadways have a higher occurrence of health problems, including asthma, cardiovascular disease, and premature death.

These findings are especially concerning for the residents of America's big cities. In 2018, a study showed Houston to have dangerously low levels of air quality. The study by the Environment Texas Research & Policy Center revealed that more than 6.7 million people in the Houston metropolitan area experienced 85 days of degraded air quality in 2016. This alarming data highlights the health risks caused by air pollution in America's urban settings.

Why You Need to Know

According to the U.S. Census Bureau, roughly 80 percent of Americans live in urban areas. This indicates that the majority of U.S. residents face health risks from air pollution exposure based on where they live. However, the effects of air pollution on human health make this a significant issue for everyone. The EPA notes that society's most vulnerable citizens have the greatest health risks from air pollution. This includes children, senior citizens, and people living in poverty.

The EPA expects air pollution to continue trending upward for the foreseeable future. As the impact of pollution grows, the U.S. Department of Labor predicts the need for environmental scientists and specialists will steadily increase. These careers play an integral role in reducing pollution and protecting the environment. Virginia Wesleyan University offers an online [Bachelor of Arts degree in Environmental Studies](#) for students who are passionate about the environment. The nationally accredited program emphasizes real-world skill development in a flexible format. VWU's expert instructors help prepare students for successful careers that have a positive impact on the world.

“We do not inherit the earth from our ancestors, we borrow it from our children,” avows a familiar Native American proverb. Indeed, we are stewards of our society and our environment for future generations. It is therefore our responsibility to pursue sound environmental policies and practices. The widespread impact of air pollution on human health is evidence that we must do better. Our future depends on it.