



## OUTDOOR AIR POLLUTION – MISSION BASE

The American Thoracic Society (ATS) mission is to “improve health worldwide by advancing research, clinical care and public health in respiratory disease, critical illness and sleep disorders.” Air pollution is a major clinical and public health problem that is of importance to our membership. TS clinicians primarily treat people with respiratory conditions, who are especially vulnerable to the adverse health effects of air pollution. We treat the consequences of polluted air, and air pollution is one of many factors our patients must consider in managing their disease. ATS scientists have been at the forefront of air pollution research for decades. We have documented the harmful effects of air pollution exposure on cardio-pulmonary health, and have identified people with chronic lung disease as especially vulnerable to the harmful effects of air pollution. It is incumbent upon our membership, as clinicians who treat patients who are most vulnerable to air pollution, and as scientists who contribute to the understanding of air pollution and its effects, to play an active role in the development, implementation and assurance of air quality policy.

## OUTDOOR AIR POLLUTION – SCIENCE BASE

Scientific studies have clearly established that exposure to air pollution is harmful for human health. Hundreds of studies, in multiple scientific disciplines, have demonstrated that exposure to air pollution, including particulate matter, ozone, biomass smoke, heavy metals, diesel fumes, and acid gases, negatively impacts the respiratory system and other aspects of human health. Epidemiological studies have documented adverse health effects at the population level, including increased respiratory illness in children and adults and premature death. In addition, controlled exposure chamber studies have demonstrated that exposure to air pollutants, in some cases at levels equal to or lower than existing air quality standard limits, impairs pulmonary and vascular function. The above findings have been verified and replicated in multiple US and international studies, over decades. The evidence is clear and compelling that air pollution is harmful to human health.

Because of the compelling evidence for the adverse health effects of air pollution, the participation of ATS members in expanding our scientific understanding of these effects and the clinical implications of air pollution to the patients we serve, the ATS adopts the following policy positions:

- The U.S. Environmental Protection Agency (EPA) should continue to establish and, every five years, revise (as needed) the science-based air quality standards to effectively protect the American public, especially vulnerable populations, with an adequate margin of safety, from the adverse health effects of air pollution. The information gleaned from continuing research into these pollutants needs to be regularly reviewed so that the standards can be based on the most current evidence to provide that protection.
- The ATS reserves the right to use court action to compel the EPA to carry out these actions should the agency fail to protect the American public from the known adverse health effects of air pollution, as required by the Clean Air Act. The ATS supports the EPA in its efforts to enforce the Act, including support for sufficient funding for all steps needed to provide that protection.
- The ATS opposes any efforts to weaken, delay or remove the authority of the EPA to establish air pollution standards for the protection of the American public.
- The EPA, NIH and other federal granting agencies should financially support rigorous, independent peer-reviewed scientific research to better understand, measure, document, and prevent the adverse health effects of air pollution.
- The ATS strongly opposes any effort to undermine the integrity of the scientific basis of air pollution research through harassment of scientific investigators.
- The federal government, the states and the tribes have established and maintain a robust air pollution monitoring network to accurately measure air pollution exposure in the U.S., to establish areas of compliance and non-compliance with air pollution standards, and to enforce them. The nation should continue to update and invest in this monitoring network to ensure a national monitor capability with state of the art monitoring technologies, and to continue intervention and enforcement actions, as needed.
- The ATS recognizes that air quality is a global issue. As an international organization, we will work with our members in other countries and collaborate with partner societies to decrease the respiratory health burden of polluted air worldwide.