

CLEANER INDOOR AIR

An opportunity to improve the health of Americans

Indoor air quality is essential for health, productivity, and economic growth. It affects how we think, feel, and work. Americans spend 90% of their time indoors, but indoor air can be 2 to 5 times—or even 100 times—more polluted than outdoor air. However, most buildings have not been designed to be healthy. Just as past public initiatives have provided us with clean water, eliminated indoor smoking, and improved fire safety, there is an opportunity to bring cleaner indoor air to buildings across America, especially for schools and other public buildings.

WHY INDOOR AIR QUALITY MATTERS

Indoor air quality has significant long-term **health effects** and is one of the top risks to the health of Americans. Poor indoor air contributes to chronic diseases like asthma, cardiovascular disease, and lung cancer; plays a major role in spreading disease; negatively impacts pregnancy; and worsens ADHD in children. Children, seniors, and individuals with chronic health conditions are especially impacted.

Clean indoor air boosts **economic productivity and growth**. Increased ventilation in buildings is associated with reduced sick days and worker absenteeism. Lower concentrations of indoor pollutants improve performance and productivity in the workplace. Mitigating the long-term health effects of indoor air quality would protect Americans and reduce healthcare burdens on families and the economy. One study estimates the U.S. economy could gain \$23 billion annually with improved air quality due to a 35% decrease in sick leave.

Indoor air quality safeguards America's **national security and critical infrastructure**. Poor indoor air quality in military installations can compromise readiness by impacting the health and performance of military personnel and reducing operational effectiveness. Critical infrastructure—including hospitals, transportation, and emergency services—depends on clean air to remain operational, especially during crises.

FEDERAL AND STATE OPPORTUNITIES TO IMPROVE INDOOR AIR QUALITY

Federal and state governments can play a critical role in improving indoor air quality by providing incentives, guidance, and technical assistance. Federal and state agencies can implement sector-specific guidelines—for example, in nursing homes, schools, and defense buildings—and provide clean indoor air in government buildings. Many basic interventions are relatively cheap, while others will require longer-term investments and upgrades.

RECOMMENDATIONS

Input from 20+ organizations with indoor air quality expertise shaped these recommendations.

- 1 Promote a healthier and more productive workplace for government employees.** As federal workers return to in-person work, improving ventilation is key to reducing sick days and employee absences. Most federal buildings do not meet required ventilation standards, and this is a major opportunity to support a productive work environment. The General Services Administration could implement a verification program and improve building operations and maintenance to ensure federal buildings meet existing standards.
- 2 Enact legislation to advance clean air in buildings.** Congress and states could pass legislation to incentivize the voluntary adoption of clean indoor air in buildings. This could include tax credits to support businesses as they encourage workers to return to office environments, reducing illness-related absences and improving productivity. Congress and state education departments could also support clean air in schools, ensuring students and staff benefit from healthier learning environments.
- 3 Support the adoption of the latest building codes and standards.** States oversee the development and enforcement of most building codes. Federal and state governments could provide funding and technical assistance to promote the implementation of the latest building ventilation codes, including the operations and maintenance components. This would help guarantee that buildings across the country meet modern standards for ventilation.
- 4 Reduce infections in long-term care facilities to improve seniors' quality of life.** While hospitals have strict ventilation standards, most long-term care facilities do not, causing seniors to get sick more often. The Centers for Medicare and Medicaid Services and state health departments could incentivize and provide best practices for nursing homes to meet minimum indoor air quality guidelines. Cleaner indoor air reduces infections in nursing centers.
- 5 Improve indoor air quality in defense buildings to support U.S. force readiness and the health of military personnel.** The Department of Defense maintains one of the world's largest building portfolios, with over 280,000 buildings. The Department could set indoor air quality standards for defense buildings and regularly assess and maintain building ventilation to safeguard the health of military personnel and bolster resiliency to biological threats.
- 6 Develop indoor air quality guidelines for adoption at the state and local levels.** A state or national government agency, or a scientific organization, could publish voluntary indoor air quality guidelines or metrics. Metrics using simple and easy-to-measure air pollutants can catalyze market demand for cleaner indoor air and unlock private-sector innovation.
- 7 Strengthen evidence for the impact of indoor air quality on chronic disease.** New efforts by the administration and Make America Healthy Again Commission to combat chronic disease could include expanding scientific research on the long-term associations between poor indoor air quality and chronic disease.