

## Clean Air is a Public Health Imperative

Extensive research links long-term exposure to PM2.5, ozone, and household air pollution to premature death and diseases like heart disease, stroke, COPD, lung cancer, type 2 diabetes, and respiratory infections (1). Delaying clean air policies, such as the transition away from fossil fuels in the transportation and building sectors, are detrimental to the health of our communities.

The undersigned health organizations support efforts to reduce pollution from highemitting sectors to protect health, close disparities, and keep solutions affordable for New Jerseyans.

For every dollar invested in air pollution control since the Clean Air Act, there has been an estimated \$30 returned to the economy (2). Despite this progress, air pollution is still responsible for 5-10% of premature mortality in the United States, underscoring the need to continue the transition away from fossil-fuels (3). Traffic-related air pollution, especially from vehicles like cars, buses, and trucks, releases a dangerous mix of pollutants that contribute to adverse health effects (4). Diesel exposure has been shown to exacerbate clinical symptoms in children with asthma (5). In New Jersey, more than 136,000 children are affected by asthma, with overburdened areas like Essex, Camden, and Cumberland counties experiencing some of the highest rates of asthma-related emergency room visits in the state (6,7).

Transitioning away from fossil fuel power sources not only reduces carbon pollution but also improves air quality by decreasing ground-level ozone (8). The transportation, building, and power generation sectors are the largest contributors to New Jersey's greenhouse gas emissions inventory (9). Vulnerable populations, particularly overburdened communities exposed to more pollution sources, face a demonstrably higher risk of health complications, and these communities continue to lack the resources and representation necessary to manage these conditions effectively (10,11).

Indoor air pollution from combustion-based appliances such as methane gas stoves and furnaces also contributes to harmful pollutants, including air toxics and nitrogen oxides, which increase the risk of asthma attacks and reduce lung function (12). Particulate matter

is linked to negative cardiovascular health outcomes, including higher blood pressure and heart failure (13). Emerging research has also identified a connection between air pollution and neurological disorders like dementia and neurological development in children (14).

We stand in strong support of the following recommendations that will reduce the risk of adverse health outcomes for New Jersey communities:

- Protect the Advanced Clean Truck Standards: The health community applauds
  the enactment of ACT, but it is essential these protections continue to be funded,
  implemented, and enforced. The transition to electric vehicles is linked to positive
  health outcomes and reduced emissions (15). ACT protects vulnerable
  communities that are disproportionately exposed to pollutants from combustion
  engines while also achieving long-term savings on fuel and maintenance for fleets
  and businesses.
- Accelerate the Transition to Energy-Efficient Buildings: Indoor air pollution can
  be 2-5 times worse than outdoor air due to a variety of sources, with one of the
  major contributors being the combustion of traditional heating fuels (12). Increased
  adoption of zero direct emission sources such as electric heat pumps and electric
  induction stoves reduce exposure to harmful pollutants, while also meeting
  greenhouse gas reduction targets. Energy-efficient appliance upgrades, and
  weatherizing homes, also provide long-term energy savings for ratepayers. It is
  critical that financial assistance and incentives are prioritized for low-income
  households to ensure these benefits are accessible and upfront cost barriers are
  minimized.
- Stay Committed to Clean Energy Sources: New Jersey needs reliable electricity sources that also benefit the environment and health. Improving the interconnection of low carbon, clean energy solutions especially offshore wind and solar will help protect fence line communities and all New Jerseyans from the damage caused by fossil fuel power plants.
- Invest in A Reliable Grid: The transition to zero emission transportation and buildings is dependent on a reliable grid that can interconnect clean energy projects and charging stations. These investments must avoid driving up costs for ratepayers by reconsidering current rate design and continuing to encourage energy conservation behind the meter.
- Empower Communities with Better Monitoring Networks: There are only 29 air monitoring stations in the entire state of New Jersey with only four stations that measure air toxics. Not all counties have air monitors, and the stationary monitors may fail to capture local air pollution. Investing in low-cost, community monitoring networks will increase transparency and provide localized data estimates for under

monitored pollutants. It is crucial community feedback is actively integrated in the monitoring and implementation processes. Communities should also have opportunities to learn about and engage with sensors and data networks. Funding opportunities and pilots should prioritize education, training, and employment, especially in the most overburdened areas, to further support involvement in community science sensor-based projects.

• Secure Long-Term Funding for Health Programs: With federal cuts impacting New Jersey's local health departments and programs, it is essential legislators secure long-term, stable funding. Given the clear and enormous threat presented by climate change, New Jersey must create a climate change division with the Department of Health, as other states have done. Local programs play an essential role in monitoring adverse health effects from environmental exposures. Sustained funding ensures that critical health protections are not compromised and that underserved communities receive continued support without financial barriers.

The health community urges our leaders to stay committed to improving air quality, dramatically driving down New Jersey's carbon footprint, and rejecting efforts to delay protections.

## **Organizations:**

Alliance of Nurses for Healthy Environments
American Lung Association
Asthma and Allergy Foundation of America
Clinicians for Climate Action New Jersey
New Jersey Society for Public Health Education
New Jersey Thoracic Society – ATS Chapter
The Center for Health Equity & Wellbeing- NJ's Public Health Institute

## References

- ICF. The Impacts of Residential Combustion Emissions on Indoor and Outdoor Air Quality and Human Health. American Lung Association; 2022. https://www.lung.org/getmedia/2786f983-d971-43ad-962b-8370c950cbd6/ICF\_Impacts-of-Residential-Combustion\_FINAL\_071022.pdf
- 2. Landrigan PJ, Fuller R, Acosta NJR, et al. The Lancet Commission on pollution and health. The Lancet (British edition). 2018;391(10119):462-512. doi:10.1016/S0140-6736(17)32345-0

- 3. Dedoussi IC, Eastham SD, Monier E, Barrett SRH. Premature mortality related to United States cross-state air pollution. *Nature (London)*. 2020;578(7794):261-265. doi:10.1038/s41586-020-1983-8
- 4. Boogaard H, Samoli E, Patton AP, et al. Long-term exposure to traffic-related air pollution and non-accidental mortality: A systematic review and meta-analysis. Environment international. 2023;176:107916-107916. doi:10.1016/j.envint.2023.107916
- 5. Fitzpatrick AM, Mohammad AF, Desher K, et al. Clinical and inflammatory features of traffic-related diesel exposure in children with asthma. *Annals of allergy, asthma, & immunology*. 2024;133(4):393-402.e4. doi:10.1016/j.anai.2024.07.019
- 6. American Lung Association. State of the Air: New Jersey. April 2025. https://www.lung.org/research/sota/city-rankings/states/new-jersey
- 7. New Jersey Department of Health. Emergency Department Visits due to Asthma by County, New Jersey, 2023. Published October 18, 2024. https://www-doh.nj.gov/doh-shad/indicator/view/NJEPHTAsthmaED.CountyAAR.html
- 8. Gallagher CL, Holloway T. Integrating Air Quality and Public Health Benefits in U.S. Decarbonization Strategies. *Frontiers in public health*. 2020;8:563358-563358. doi:10.3389/fpubh.2020.563358
- 9. NJ Greenhouse Gas Emissions Inventory Report Years 1990-2021. New Jersey Department of Environmental Protection. 2024. 2024-ghginventory-report.pdf
- Louisias M, Phipatanakul W. Managing Asthma in Low-Income,
   Underrepresented Minority, and Other Disadvantaged Pediatric Populations:
   Closing the Gap. Current allergy and asthma reports. 2017;17(10):68-68.
   doi:10.1007/s11882-017-0734-x
- 11. Ji N, Baptista A, Yu CH, et al. Traffic-related air pollution, chronic stress, and changes in exhaled nitric oxide and lung function among a panel of children with asthma living in an underresourced community. *The Science of the total environment*. 2024;912:168984-168984. doi:10.1016/j.scitotenv.2023.168984
- 12. The Impacts of Residential Combustion Emissions on Indoor and Outdoor Air Quality and Human Health. American Lung Association; 2022. https://www.lung.org/getmedia/2786f983-d971-43ad-962b-8370c950cbd6/ICF\_Impacts-of-Residential-Combustion\_FINAL\_071022.pdf
- 13. Lederer AM, Fredriksen PM, Nkeh-Chungag BN, et al. Cardiovascular effects of air pollution: current evidence from animal and human studies. *American*

- journal of physiology Heart and circulatory physiology. 2021;320(4):H1417-H1439. doi:10.1152/ajpheart.00706.2020
- 14. Delgado-Saborit JM, Guercio V, Gowers AM, Shaddick G, Fox NC, Love S. A critical review of the epidemiological evidence of effects of air pollution on dementia, cognitive function and cognitive decline in adult population. *The Science of the total environment*. 2021;757:143734-. doi:10.1016/j.scitotenv.2020.143734
- 15. Pennington AF, Cornwell CR, Sircar KD, Mirabelli MC. Electric vehicles and health: A scoping review. *Environmental research*. 2024;251(Pt 2):118697-. doi:10.1016/j.envres.2024.118697