

Consensus Statement on Reducing the Health Burden of Air Pollution in Texas

Air pollution is a significant public health problem in Texas. Different areas of the state have different outdoor air quality problems, depending on both the contributions of various local/regional sources such as vehicular traffic, diesel-powered vehicles and equipment, industrial sites, and power plants, and on dispersion factors.

The majority of Texans reside in counties having dangerous levels of one or more pollutants including ozone, particulates, and air toxics. In addition, the majority of Texans fall into at least one subgroup known to have enhanced susceptibility to the adverse health effects of air pollution: those under the age of 18; those age 65 or over; those having chronic diseases such as asthma, COPD, cardiovascular diseases, and diabetes. Texans living in or near air pollution “hotspots” around high-traffic roadways and certain industrial sites bear an additional health burden.

The common pollutants of our air in Texas, referred to collectively by the EPA as NAAQS (National Ambient Air Quality Standards) “criteria pollutants” - including nitrogen oxides (NO_x), sulfur dioxide (SO₂), ozone, and particulate matter (PM) such as diesel particulates - are associated with a wide variety of adverse health effects such as exacerbation of asthma and COPD; new onset of asthma; increase in MI, strokes, and arrhythmias; lung cancer; premature mortality from respiratory and cardiovascular diseases, and from diabetes; premature birth; low birth weight; impaired lung development; impaired neurocognitive development; and increased allergic sensitization.

The Texas Commission on Environmental Quality (TCEQ) has identified in its Air Pollution Watch List (APWL) many areas across the State that exceed levels of hazardous air pollutants (“air toxics”) known to impair human health. Many of these areas have been on the APWL for years without resolution because there is currently no requirement that, once identified, offending conditions must be remediated in a given time frame or that the sources of the pollutants be identified and addressed. Most of the air pollutants at the sites identified in the APWL are carcinogenic. In addition to cancer risk, short-term and long-term exposures to these and other air toxics are known to cause a variety of adverse noncancer health effects in fetuses, children, and adults.

The U.S. Environmental Protection Agency (EPA) has set a goal for carcinogenic air pollutants to be limited to a level of increased lifetime risk of cancer of 1 in 1,000,000, as articulated in the Clean Air Act (CAA). The TCEQ has adopted a less protective policy of 1 in 100,000 increased lifetime risk of cancer, further increasing Texans’ health burden from air toxics.

The levels of methylmercury found in fish and wildlife in Texas are the result of local emissions of mercury as well as emissions from around the world. Many lakes, rivers, and coastal waters in Texas have fish containing significant levels of methylmercury. Due to its serious adverse effects on neurological development in fetuses and children, the EPA recommends a level of 0.3 mg/kg of

methylmercury in fish as the health-based trigger for regulatory actions. The majority of states in the U.S. provide advisories for consumption of fish caught in local lakes, rivers, and coastal areas at methylmercury levels of 0.3 mg/kg or less, considerably more protective than Texas. Texas uses the level of 0.7 mg/kg.

As physicians we see firsthand the human cost of air pollution - illness, disability, loss of productivity, and loss of life. For those affected, this means days lost from school, days lost from work, kids home from daycare, inability to perform routine functions, disrupted family life, increased out-of-pocket expenses, and reduced quality of daily life. For our health care institutions, already overburdened, it means increased clinic visits, ER visits, and hospitalizations. We warn patients not to go outdoors and not to exercise because of dirty air, even in the face of increasing problems of obesity and poor physical fitness in our country.

Physicians are held in high esteem among Texans. Our professional voice is respected and trusted, and our recommendations on health issues carry considerable weight. The public expects and deserves leadership from the medical community in protecting its health interests. Therefore, as Texas physicians, we endorse the goal of reducing the health burden of air pollution in Texas, and call for prompt and aggressive action to achieve that goal, including:

- **Reducing air emissions from on-road vehicles** by increasing fleet fuel efficiency including use of hybrids and electric vehicles; use of advanced emission control technologies; adopting strategies for traffic and congestion reduction; enhancing public and shared transportation; decreasing vehicle miles traveled; minimizing idling; cleaning up or retiring older high-polluting vehicles; providing incentives to individuals and businesses to use transportation alternatives.
- **Reducing air emissions from diesel powered vehicles and equipment** by use of cleaner fuels and advanced engine technologies; retrofitting or replacement of dirty-running equipment (e.g. old school buses); use of “clean contracting” strategies in construction projects (reducing diesel emissions from construction vehicles and equipment); minimizing idling; use of electrification (“plug-ins”) in truck stops for long-haul truckers.
- **Reducing air emissions from marine vessels and operations** by using cleaner marine diesel fuels; upgrading support vehicles, ships, and cargo-handling equipment fleet by retrofit or replacement; use of electrification (shore power) for ships in port; supporting use of cleanest transport methods for port freight; minimizing idling.
- **Reducing emissions of air toxics** by using best available control and management practices to reduce leaks, accidental releases, and routine process emissions; expanding the use of the latest advanced technologies to detect and quantify emissions of air toxics, especially in areas that have been identified as areas of concern by the TCEQ; promoting the establishment of a standardized procedure to remediate areas of concern around the State, including implementation of a deadline to remove areas from the APWL as quickly as possible; considering the cumulative environmental and health impacts of all activities affecting an area when considering the issuing of an air permit for a particular facility; supporting adoption in Texas of the EPA/CAA goal of 1 in 1,000,000 excess cancer risk from air toxics; and improving accuracy and verification of annual air emissions reports.

- **Reducing air emissions (including mercury) from power plants** by maximizing energy efficiency and conservation; rigorous emissions controls; increasing the proportion of the state's power generated from clean, renewable sources; considering regional air quality impacts of proposed plants during the permitting process; adopting a health-protective standard for mercury contamination in fish; issuing statewide, regional, and local health advisories on the risk of consuming fish with levels of mercury contamination in fish of over 0.3 mg/kg.
- **Reducing air emissions of lead** by applying existing emission limits to emitters of all sizes; ensuring adequate geographic coverage in monitoring.
- **Reducing air pollution from all sources** by basing air quality standards principally on human health; applying the same health-based air quality standards to highly-exposed communities as to the general public; improving monitoring to better document geographic and temporal distribution of air pollutants across the State, especially in areas that have been identified as areas of concern by the TCEQ.
- Strictly enforcing applicable laws, standards, and permits.
- Recognizing the ever-present need for additional research, but not allowing it to preclude or delay concrete actions such as those set forth above.
- Supporting participation of citizens and local governments in the air quality permitting process, and ensuring public access to air quality compliance records and comprehensive records of permitted and nonpermitted releases.
- Educating Texans about the adverse health effects of air pollution, the measures they can take to help improve air quality, and the role and performance of local, state, and federal bodies in improving air quality.