Medical Perspectives on Clean Air Health Effects[1]

Note: **From testimony submitted by TPPF Research Fellow John Dunn, MD, JD to the Texas Natural Resource Conservation Commission (TNRCC) regarding the proposed revisions to the State Implementation Plan (SIP) under the federal Clean Air Act for the Dallas-Fort Worth metropolitan region. The TNRCC hearing was held in Dallas on January 27, 2000.**

My comments on the health effects of pollution are based on my 27 years as a physician with special interests and certification in Family Practice and Emergency Medicine. I have also closely followed Environmental Law and regulation as an attorney for twenty years and teacher of environmental law for the past ten years.

In my view, it is vital to assess the connection between human health effects and air quality conditions before imposing any new and more strict economic and societal costs on the Dallas-Fort Worth region. Public health impacts should be a cornerstone of EPA regulatory policy under the Clean Air Act. Although EPA has asserted for years a direct causal relationship between outdoor air quality and significant human health risks, there are real and pervasive problems with EPA health science.

Two years ago EPA announced that, on the basis of medical research, it could justify new strict standards on ozone (a naturally occurring oxygen compound) and small particulate matter (dust and smoke components). This medical research is made up of studies known in scientific circles as the Six City Study and the Pope Study. Both studies are short-term, "all-cause" death studies conducted on small population samples with limited controls for confounding variables. This lack of controls creates serious questions about the validity of these studies and whether they should justify any new regulations, particularly onerous ozone and particulate matter controls.

At the time of the EPA decision on whether to rely on these studies for subsequent rulemaking, many scientists, both in and out of the federal government, recommended further scientific assessment before proceeding. EPA's own in-house Clean Air Scientific Advisory Committee also recommended less stringent new air quality regulations because the health studies were inconclusive and weak. The EPA leadership ignored the recommendations from the scientific community and pursued immediate implementation of very tight regulations on these air pollutants.

As a physician and environmental researcher, I concur with the concerns expressed by the scientific community as they relate to the health studies and to proposed new compliance plans attendant to both current and proposed regulations, particularly given that the quality of air is improving already under current federal and state rules. The proposed new rules under the State Implementation Plan will have a negative impact on ordinary human economic activity with questionable health benefits.

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[1] Testimony of John Dunn, MD, JD, FACEP, FACLM, FAAFP, Consultant, Health and Emergency Services, Nebraska Bar & Louisiana Bar Only, to the Texas Natural Resource Conservation Commission (TNRCC), January 2000.

In view of the present circumstances pertaining to the proposed SIP revisions, I offer the following observations and warnings:

1. Lung and respiratory ailments other than asthma take years to produce any serious injury or produce permanent illness. With the exception of asthma, lung and respiratory ailments are predominately caused by cigarette smoking.

2. Asthma is a sensitivity and allergic disease that is treatable, and when treated effectively will not cause death, except in difficult cases that affect people for many years. Air pollution at current levels is not an important criterion in asthma cases.

3. Asthma and the lung problems aggravated by the current low levels of air pollution are reversible and treatable and do not kill.

4. The studies that EPA relies upon to justify their regulations are mortality studies with very questionable methodology, including the questionable process of deciding why people die by reviewing death certificates and then comparing them to air pollution monitoring data.

5. People spend the vast amount of their time indoors, not outdoors. Further, there is little or no relationship between outside air quality and human health. Inside air quality is more important, and is impacted primarily by housing quality and indoor air conditions, such as heating and air conditioning quality, inside smoking, cooking, dust, insect infestation, and indoor chemicals.

6. The EPA proposed regulations encompassing small particulate matter were based on studies of other pollutants, called surrogate studies, which represent weak science. The particulate matter studies were performed when there were but a few small particulate matter monitors. The studies did not establish adequate evidence, certainly not proof, that small particles in the outside air at present levels constitute a significant health hazard.

7. The old "poison air" medical reports of the 1940s and 1950s that EPA uses to justify onerous new regulations have little to do with today's environmental debate. The soot and smoke of that time period are gone.

8. Levels of smoke, dust and other pollutants from metropolitan areas in the past were three to four times current levels of those contaminants. In those days people even wore dark clothes to hide the soot.

9. Current medical epidemiology shows an increase in the frequency of asthma, while air pollution is declining across the nation and in metropolitan areas. The logical conclusion is that EPA is tracking the wrong problem, if indeed the problem is in the air.

I assert that it is time, indeed past time, for EPA to reassess the human health implications of the current and proposed rules encompassing the Dallas-Fort Worth compliance with the CAA SIP. The proposed SIP revisions will produce few and limited health benefits at substantial economic cost and with significant societal disruption.