



**INTERNATIONAL  
JOINT POLICY COMMITTEE  
OF THE SOCIETIES OF EPIDEMIOLOGY**

## **All Hands on Deck: Going to Zero Campaign**

International Joint Policy Committee of the Societies of Epidemiology (IJPC-SE)

April 25, 2017, Harrisburg, Pennsylvania

Remarks, Robin Taylor Wilson, PhD, IJPC-SE Secretary

**The International Joint Policy Committee of the Societies of Epidemiology (IJPC-SE)** has 21 member organizations in Africa, Europe, Asia, Australia, North and South America, representing professional epidemiologists world-wide. Epidemiologists lead investigations to understand root causes of disease and to recommend both short-term and long-term interventions that will improve health. The mission of the IJPC-SE is to promote the ethical and unbiased application of epidemiology. We use epidemiological evidence to inform rational policy development for government and other policy-making organizations.

**We are standing at a critical juncture in our decision-making.** I would like to put this in historical perspective. Beginning in the 1920s, against the recommendation of health professionals, fuel for automobiles was spiked with lead in order to improve engine performance. In the 1970s, blood lead levels on average were over twenty times the current levels in the United States. Even though major sources of exposure were banned nearly 40 years ago, we as a society are still paying for poor decisions, both in costs to our health and to our healthcare system. The Centers for Disease Control and Prevention estimated that lead (Pb) exposure in children has resulted in annual costs in lost productivity alone of \$110 billion to \$319 billion since 1976—making lead exposure a silent but extremely costly epidemic (Grosse, 2002).

**Today,** both the American Cancer Society and the International Agency for Research on Cancer have classified fine particulate matter occurring in air pollution as carcinogenic. In addition to small particulates associated with increased risk of lung cancer, air pollution contains known

carcinogens such as benzene, formaldehyde, as well as toxic trace elements such as cadmium, mercury and lead. The International Joint Policy Committee of the Societies of Epidemiology supports these formal assessments.

**The Global Burden of Disease** collaborative has estimated that fine particulate matter is the 9th leading cause of global morbidity, which contributes to approximately 3.2 million deaths in 2010, an increase from 2.9 million deaths in 1990. In addition to cancer, fine particulate matter in pollution is associated with deaths from heart attack, stroke, chronic obstructive pulmonary disease and asthma.

**In Pennsylvania**, according to a 2013 MIT study, fine particulate matter is responsible for nearly 12,000 deaths (11,994) each year—ranking Pennsylvania second in the nation in the total number of deaths attributed to electric power generation, just behind Ohio (#1) and ahead of New York (#3) (Caiazzo, 2013). A 2016 study conducted by Carnegie Mellon reports that damages from the energy production sector to Pennsylvanians have been in excess of \$15 billion per year since 2002—ranking Pennsylvania with Indiana and Ohio among states with the greatest nation-wide toll on our citizens. Our state is leading the nation in air pollution-related deaths and its health-related costs to our citizens (Jaramillo, 2016).

Certainly, the global health impacts of climate change are not limited to toxic exposures in air. Sheffield and Landrigan (2011) point out the disproportionately heavy impacts on children and vulnerable populations globally due to extreme weather events leading to: food insecurity, drought and changes in the distribution and intensity of vector-borne infection among other health threats. We agree with Sheffield and Landrigan’s call for:

*“enhanced monitoring of current children’s environmental health status, better incorporation of climate change adaptation into existing programs, and new climate-sensitive disease prevention programs that have short- and long-term health co-benefits.”*

We can act now to improve our health and reduce greenhouse gas emissions. We are here to call on our decision-makers to make decisions leading to a better tomorrow.

- The IJPC-SE calls on the health commissioners, representatives, Governor Wolf, and the citizens of our Commonwealth to consider how the decisions we make now may promote or undermine our health--both today and in future generations.

More frequent extreme weather events and exposure to toxic pollutants should not be in our children’s future.

Let us act now on their behalf.