

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 915  
(I-19)

Introduced by: American College of Cardiology  
Heart Rhythm Society

Subject: Preventing Death and Disability Due to Particulate Matter Produced by  
Automobiles

Referred to: Reference Committee K

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Whereas, Environmental pollution is the largest cause of premature and preventable death and disability in the world today (Landrigan PJ, Fuller R, Acosta NJR, et al. The Lancet Commission on pollution and health. *Lancet* 2018;391:462-512); and

Whereas, Inextricable evidence documents the adverse health effects of air pollution on climate change and the global environment; and

Whereas, Robust scientific evidence indicates that environmental exposure to toxic nanoparticles (fine particulate matter <2.5 µm), is a direct causal factor in the development of cardiovascular disease, (Rajagopalan S, Al-Kindi SG, Brook RD. Air Pollution and Cardiovascular Disease. *JACC* 2018;72:2054-70. Chen CL, Sera F, Vicedo-Cabrera AM, et al. Ambient Particulate Air Pollution and Daily Mortality in 652 Cities. *N Engl J Med* 2019;381:705-715); and

Whereas, Air pollution and global warming are multi-factorial, longstanding, multinational problems that require comprehensive, widely collaborative solutions; and

Whereas, Gasoline and diesel combustion powered vehicles are a primary source of environmental exposure to these nanoparticles and other disease-causing pollutants including noise (Luscher TF. Noise, pollution, food, or medication: what really matters in primary prevention? *Eur Heart J* 2019;40:563-566), Heritier H, Vienneau D, Foraster M, et al. A systematic analysis of natural effects of transportation noise and air pollution exposure on myocardial infarction mortality: a nationwide cohort study in Switzerland. *Eur Heart J* 2019;40:598-603); and

Whereas, Regulation, reduction and future elimination of gasoline and diesel combustion vehicles has been proposed as a near term, readily achievable means for prevention of cardiovascular diseases which can be implemented while additional comprehensive approaches to reducing air pollution from all sources are developed (Burch I, Gilchrist J. Survey of Global Activity to Phase Out Internal Combustion Engine Vehicles <https://climateprotection.org/wp-content/uploads/2018/09/Survey-in-Global-Activities-to-Phase-Out-ICE-Vehicles-FINAL.pdf>, Schnell J, Naik V, Horowitz LW, et al. Air quality impacts from the electrification of light-duty passenger vehicles in the United States. *Atmospheric Environment*, 2019;208:95); and

Whereas, Automobile manufacturers are aggressively developing electric powered vehicles, and alternatives for quiet, non-polluting, efficient public transportation exist, but funding for these

services competes for funding for freeway construction, air travel and the fossil fuel industry;  
and

Whereas, Reduced exposure to nanoparticles produced by combustion engines may have a beneficial effect in reducing heart disease and cancer of a magnitude similar to that produced by public health programs which reduced tobacco smoking; and

Whereas, Current AMA policy (H-135-998 "Governmental control programs should be implemented primarily at those local, regional, or state levels which have jurisdiction over the respective sources of air pollution and the population and areas immediately affected, and which possess the resources to bring about equitable and effective control," H-135-999 "...this may be done by federal grants for (1) the development of research activity and (2) the encouragement of local programs for the prevention and control of air pollutants" and D-135-985 "...declare the need for authorities in all states to expeditiously adopt, and implement effective air pollution control strategies to reduce emissions, and this position will be disseminated to state and specialty societies"} should be updated to address urgent policy issues related to environmental exposure to nanoparticles that transcend local, regional and national governmental authority); and

Whereas, Our AMA is responsible for informing our colleagues, our patients and responsible authorities at all levels of society and government as to the medical evidence supporting the direct link between exposure to particulate matter produced by gasoline and diesel powered vehicles to heart and lung disease and cancer, (Dunk JH, Jones DS, Capon A, et al. Human Health on an Ailing Plants – Historical Perspective on Our Future. N Engl J Med 2019;381:778-781); therefore be it

RESOLVED, That our American Medical Association promote policies at all levels of society and government that educate and encourage policy makers to limit or eliminate disease causing contamination of the environment by gasoline and diesel combustion-powered automobiles, advocating for the development of alternative means for automobile propulsion and public transportation. (New HOD Policy)

Fiscal Note: not yet determined.  
Received: 10/01/19

#### Additional References

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