

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 437  
(A-22)

Introduced by: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

Subject: Air Pollution and COVID: A Call to Tighten Regulatory Standards for Particulate Matter

Referred to: Reference Committee D

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1 Whereas, The Environmental Protection Agency (EPA) is in the process of reviewing the current  
2 National Ambient Air Quality Standards (NAAQS) for fine particulate matter (particles with a  
3 diameter of  $\le 2.5 \mu\text{m}$  [PM<sub>2.5</sub>]) — that is, levels not exceeding an annual average of 12  $\mu\text{g}$  per  
4 cubic meter and a 24-hour average of 35  $\mu\text{g}$  per cubic meter; and

5  
6 Whereas, The current EPA guidelines are not sufficient to protect public health, since exposure to  
7 ambient PM<sub>2.5</sub> at the current accepted EPA levels is estimated to be responsible for tens of  
8 thousands of premature deaths in the United States each year<sup>1</sup>; and

9  
10 Whereas, Current AMA policy calls for more stringent standards than are currently followed by the  
11 EPA as noted in the policy summary below; and

12  
13 Whereas, Air pollution is known to correlate with numerous other adverse health outcomes also,  
14 including heart disease, stroke, asthma, COPD, and neurodegenerative disorders; and air  
15 pollution disproportionately affects vulnerable populations and communities of color<sup>1</sup>; and  
16 Whereas, Results suggest that exposure to traffic-related air pollution is associated with  
17 dementia, via both direct neural damage as well as indirect pathways related to diabetes and  
18 metabolic dysfunction; and

19  
20 Whereas, Nearly all deaths attributable to air pollution in the contiguous United States are  
21 associated with ambient air pollution concentrations below the current EPA standards, a finding  
22 that both reflects past success and suggests that more stringent PM<sub>2.5</sub> air quality standards may  
23 further reduce the national death toll associated with air pollution; and

24  
25 Whereas, Vulnerable populations and communities of color are most at risk for negative health  
26 impacts from particulate air pollution owing to their location near emission sources or to  
27 demographic or clinical characteristics (e.g., age or disease status) that increase their  
28 susceptibility<sup>1</sup>; and

29  
30 Whereas, Despite many improvements since passage of the Clean Air Act in 1970, according to a  
31 report from the National Bureau of Economic Research, “After declining by 24.2% from 2009 to  
32 2016, annual average fine particulate matter (PM<sub>2.5</sub>) in the United States in counties with  
33 monitors increased by 5.5% between 2016 and 2018;” and

34  
35 Whereas, Former members of the EPA Clean Air Scientific Advisory Committee on Particulate  
36 Matter (which was dissolved on October 10, 2018), who now make up the nongovernmental  
37 Independent Particulate Matter Review Panel, unequivocally and unanimously concluded that the  
38 current PM<sub>2.5</sub> standards do not adequately protect public health<sup>1</sup>; and

1 Whereas, A recent health impact assessment modeling a 40% reduction in PM2.5 exposure  
2 estimated a drop in mortality by > 100,000 among adults in the Continental United States; and  
3  
4 Whereas, Increased mortality due to COVID-19 has been shown in studies at Harvard and in the  
5 Netherlands to be associated with air pollution: an increase of 1ug/m3 of PM 2.5 was shown to be  
6 associated with an 8% increase in the COVID-19 death rate in the US, and a 16% increase in the  
7 death rate due to COVID-19 in the Netherlands; and  
8  
9 Whereas, Indoor air pollution in the COVID-19 era has demonstrated unequivocally to be a  
10 much greater source of viral transmission than outdoor pollution by ~~CDC~~, EPA and other  
11 agencies, recently resulting in recommended improvements in ~~ventilation~~ and air filtering<sup>1</sup>; and  
12  
13 Whereas, COVID-19 has also disproportionately affected ~~vulnerable populations~~ and communities  
14 of color where there has been a higher burden of disease ~~and~~ higher mortality; therefore be it  
15  
16 RESOLVED, That our American Medical Association ~~AMA~~ advocate for stronger ~~federal~~  
17 particulate matter air quality standards than ~~currently~~ in place ~~and~~ improved enforcement that  
18 will better protect the public's health. (Directive to ~~Take Action~~)

Fiscal Note: Not yet determined

Received: 05/18/22

#### References

Link that is most pertinent: <https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm>

<sup>1</sup> Independent Particulate Matter Review Panel NEJM Sounding Board "The Need for a Tighter Particulate-Matter Air-Quality Standard" NEJM 383;7 August 13, 2020.

<sup>2</sup> Paul KC, Haan M, Yu Y, et al. Traffic-Related Air Pollution and Incident Dementia: Direct and Indirect Pathways Through Metabolic Dysfunction. *J Alzheimers Dis.* 2020;76(4):1477-1491. doi:10.3233/JAD-200320

<sup>3</sup> Bowe B, Xie Y, Yan Y, Al-Aly Z. Burden of Cause-Specific Mortality Associated With PM2.5 Air Pollution in the United States. *JAMA Netw Open.* 2019 Nov 1;2(11):e1915834. doi: 10.1001/jamanetworkopen.2019.15834. PMID: 31747037; PMCID: PMC6902821.

<sup>4</sup> NBER WORKING PAPER SERIES, "RECENT INCREASES IN AIR POLLUTION: EVIDENCE AND IMPLICATIONS FOR MORTALITY," K Clay et al. <http://www.nber.org/papers/w26381>

<sup>5</sup> Vodonos A, Schwartz J. Estimation of excess mortality due to long-term exposure to PM<sub>2.5</sub> in continental United States using a high-spatiotemporal resolution model. *Environ Res.* 2021 May;196:110904. doi: 10.1016/j.envres.2021.110904. Epub 2021 Feb 23. PMID: 33636186.

<sup>6</sup> Wu X, Nethery RC, Sabath BM, Braun D, Dominici F (2020) Exposure to air pollution and COVID-19 mortality in the United States: a nationwide cross-sectional study. *medRxiv*3

<sup>7</sup> IM Cole et al "Air Pollution and COVID-19 in Dutch Municipalities, Envir Resource Econ Aug 4 2020 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7399597/#CR25>

<sup>8</sup> Health Equity considerations and racial and ethnic minority groups. <https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html>