Young 2023 03 23 CARB public comments

**Dr. S. Stanley Young’s Verbal Comment to March 22, 2023 CARB Air Pollution Research Zoom**

I am **S. Stanley Young**, PhD in statistics and genetics. I am a Fellow of the American Statistical Association and AAAS. I have studies environmental epidemiology for over 10 years. I was a member of the EPA Science Advisory Board from 2017 to 2021.

I obtained all the death certificates for California for the years 2000-2012, ~2M e records. We looked at all-cause, respiratory and cardiovascular deaths for all ages and older adults. We looked at the eight most populated air basins. We computed more than 70,000 over the course of our work. We published our work in 2017. We found no evidence of effects of PM2.5 or ozone on mortality. We make our data public in 2015. To my knowledge no one has disputed our results. Young et al. 2017.

A WHO funded study was reported in 2020. A risk ratio of 1.000 is no effect. They reported a risk ratio so close to 1.0000, 1.0065, as to be considered No Effect. Orellano et al. 2020.

Much of the history of air components and health effects is covered in a public report I co-authored for the National Association of Scholars. Young et al. 2021.

**It is time for CARB to obtain California data for the years 2013 to 2022 public.**

My results are transparent. CARB regulations should be based on transparent, pubic data.

**References**

Orellano P, Reynoso J, Quaranta N, Bardach A, Ciapponi A. 2020. Short-term exposure to particulate matter (PM10 and PM2.5), nitrogen dioxide (NO2), and ozone (O3) and all-cause and cause-specific mortality: Systematic review and *meta*-analysis. *Environment International* 142:105676. <https://doi.org/10.1016/j.envint.2020.105876>.

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