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Jorgenson, A.K., Thombs, R.P., Clark, B., Givens, J.E., Hill, T.D., Huang, X., Kelly, O.M. and Fitzgerald, J.B., 2020. Inequality Amplifies the Negative Association Between Life Expectancy and Air Pollution: A Cross-National Longitudinal Study. *Science of The Total Environment*, p.143705. <https://doi.org/10.1016/j.scitotenv.2020.143705>

Abstract:

Ambient air pollution, in the form of fine particulate matter (PM_{2.5}), poses serious population health risks. We estimate cross-national longitudinal models to test whether the negative relationship between life expectancy and PM_{2.5} concentration is larger in nations with higher levels of income inequality. The dependent variable is average life expectancy at birth, and the focal predictor variables include PM_{2.5} concentration, income inequality, and the two-way interaction between them. We also estimate the average marginal effects of PM_{2.5} concentration from low to high values of income inequality, and the predicted values of life expectancy from low to high values of PM_{2.5} concentration and income inequality. Results indicate that the negative relationship between life expectancy and PM_{2.5} concentration is larger in nations with higher levels of income inequality, and the reductions in predicted life expectancy are substantial when both PM_{2.5} concentration and income inequality are high. We suggest that the theoretical principles of Power, Proximity, and Physiology help explain our findings. This study underscores the importance in considering the multiplicative impacts of environmental conditions and socioeconomic factors in the modeling of population health.

Highlights:

- PM_{2.5} poses serious population health risks throughout the world.
- We estimate longitudinal models of life expectancy for 136 nations.
- Average life expectancy is negatively associated with PM_{2.5} concentration.

- Income inequality amplifies the negative association between them.

Guadalupe Marquez-Velarde

Marquez-Velarde G (2020) The paradox does not fit all: Racial disparities in asthma among Mexican Americans in the U.S. *PLoS ONE* 15(11): e0242855. <https://doi.org/10.1371/journal.pone.0242855>

Abstract:

Mexican Americans have a lower prevalence of asthma than White Americans, Black Americans, and Other Hispanics. This is concordant with the Hispanic Paradox, which posits that Hispanics have good health and lower mortality than White Americans despite their relative socioeconomic disadvantages. However, the research is limited in relation to the effects of race on health, independent of ethnicity, among this population. In this study, the author disaggregated Mexican Americans, foreign-born and U.S.-born into two categories, White and Black Mexicans, in order to assess their likelihood of having an asthma diagnosis, compared to White Americans and to each other. This study used harmonized data from the National Health Interview Survey from 2000–2018 with a final analytic sample of N = 1,094,516. The analysis was conducted using binary logistic regression, controlling for acculturation and health behavior-related variables, as well as sociodemographic characteristics. In the results, Black Mexicans had a significant disadvantage in relation to their White counterparts and White Americans. The findings suggest there is an intra-ethnic racial disparity in asthma and the Hispanic paradox is not applicable across racial lines for Mexican Americans. These findings also suggest Black Mexicans' poor asthma outcomes are the byproduct of various mechanisms of racial inequality.