

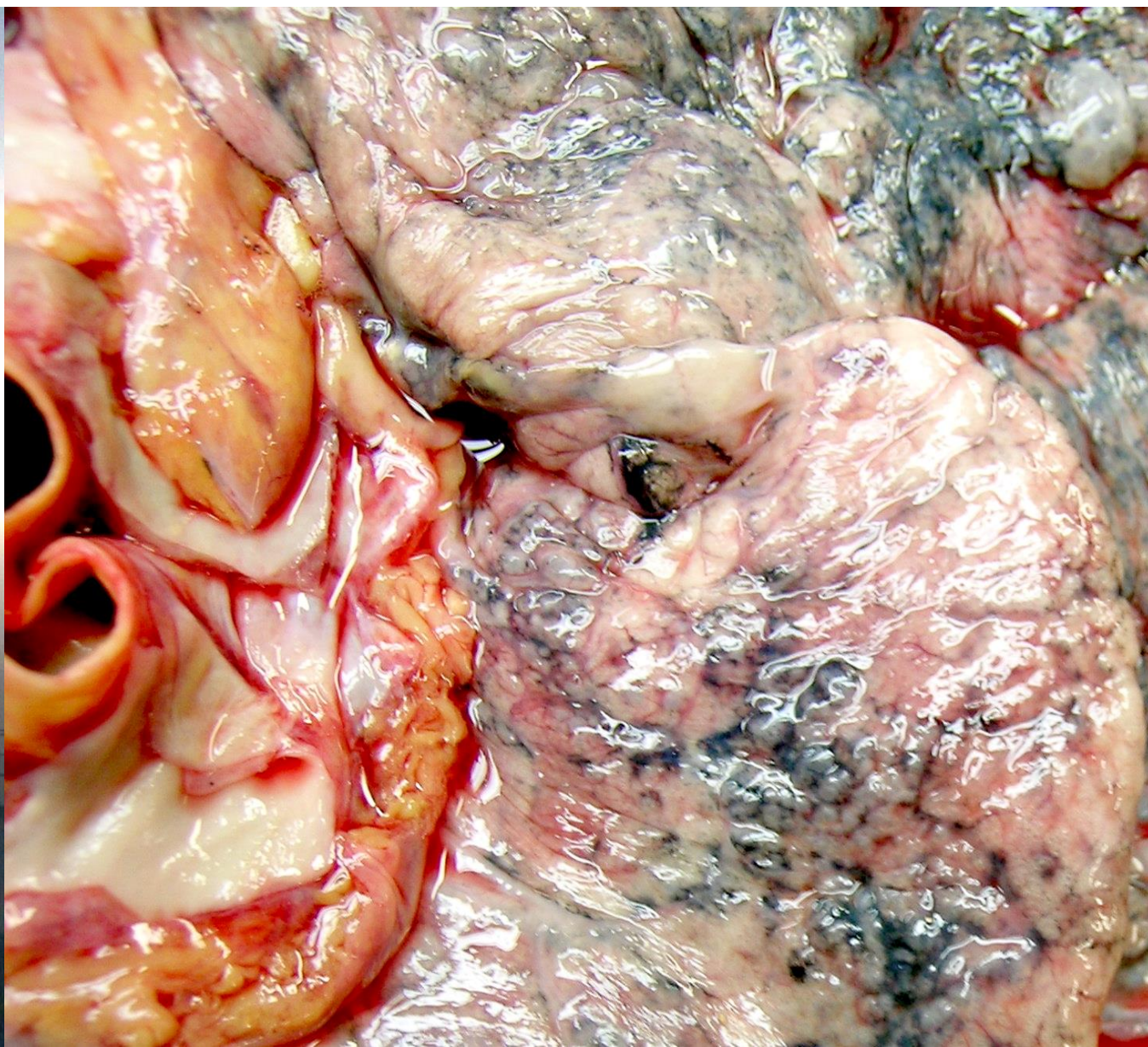
Air pollution and Human Health

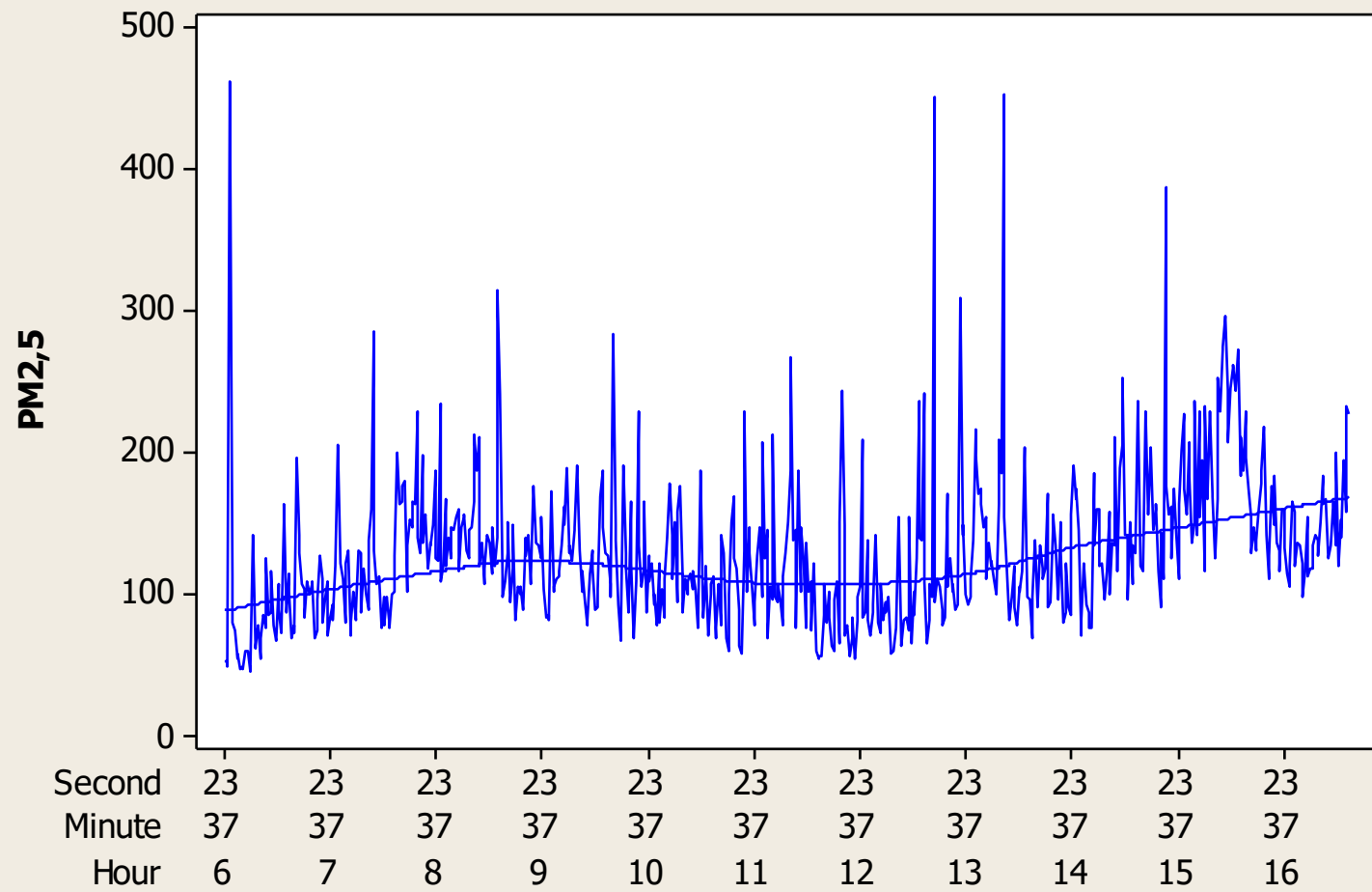
Paulo Saldiva

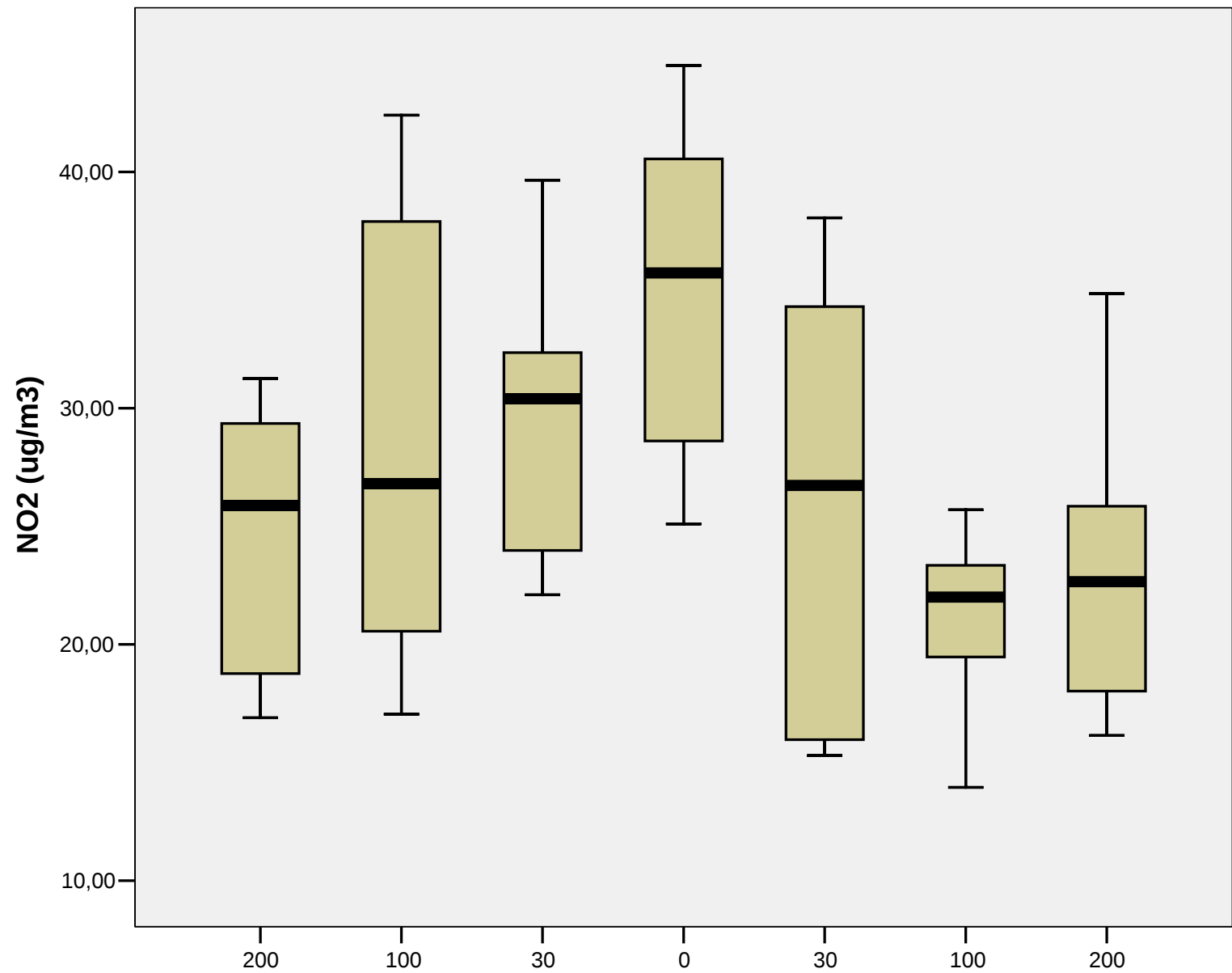
Institute of Advanced Studies

University of São Paulo

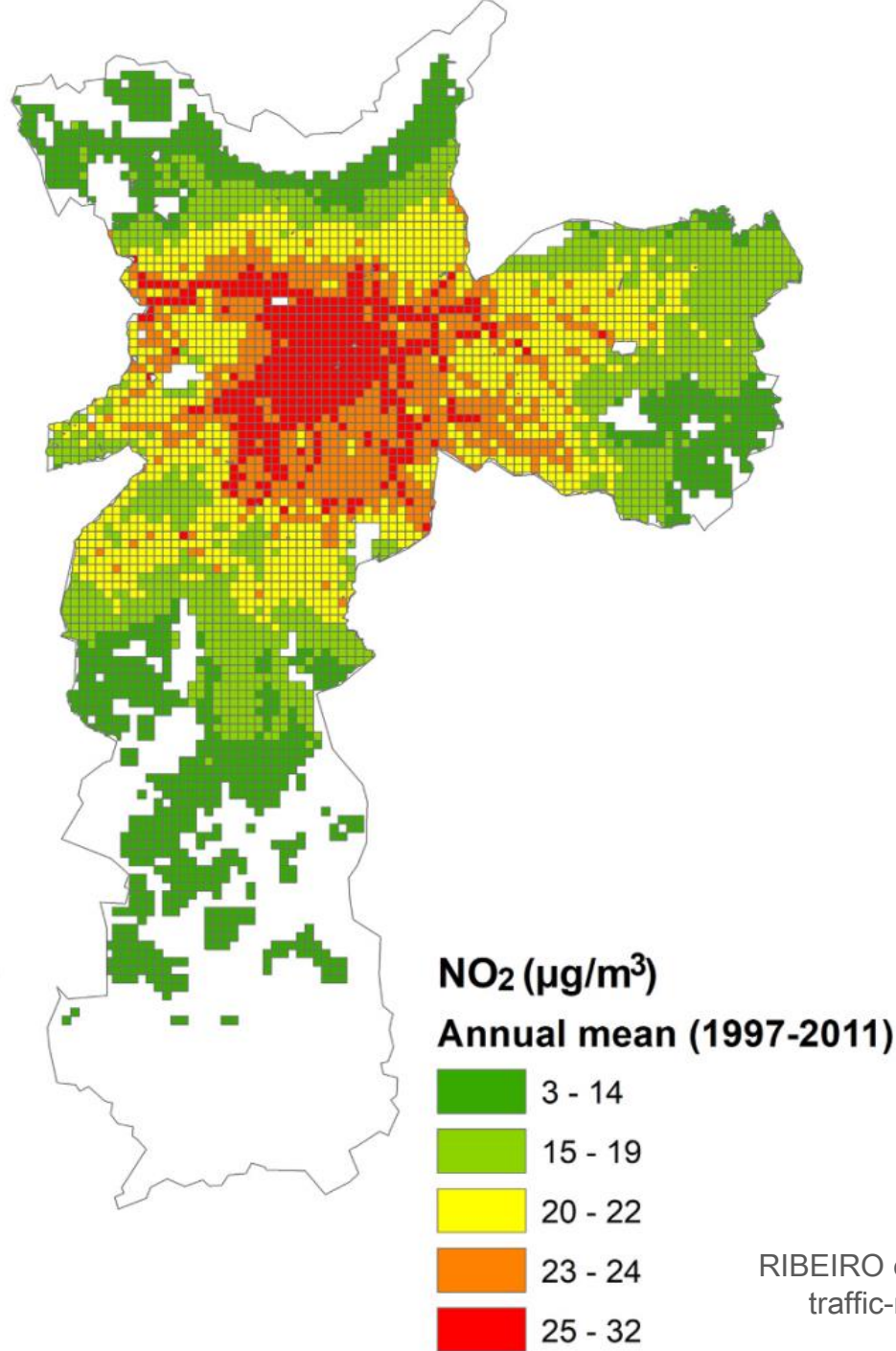
pepino@usp.br



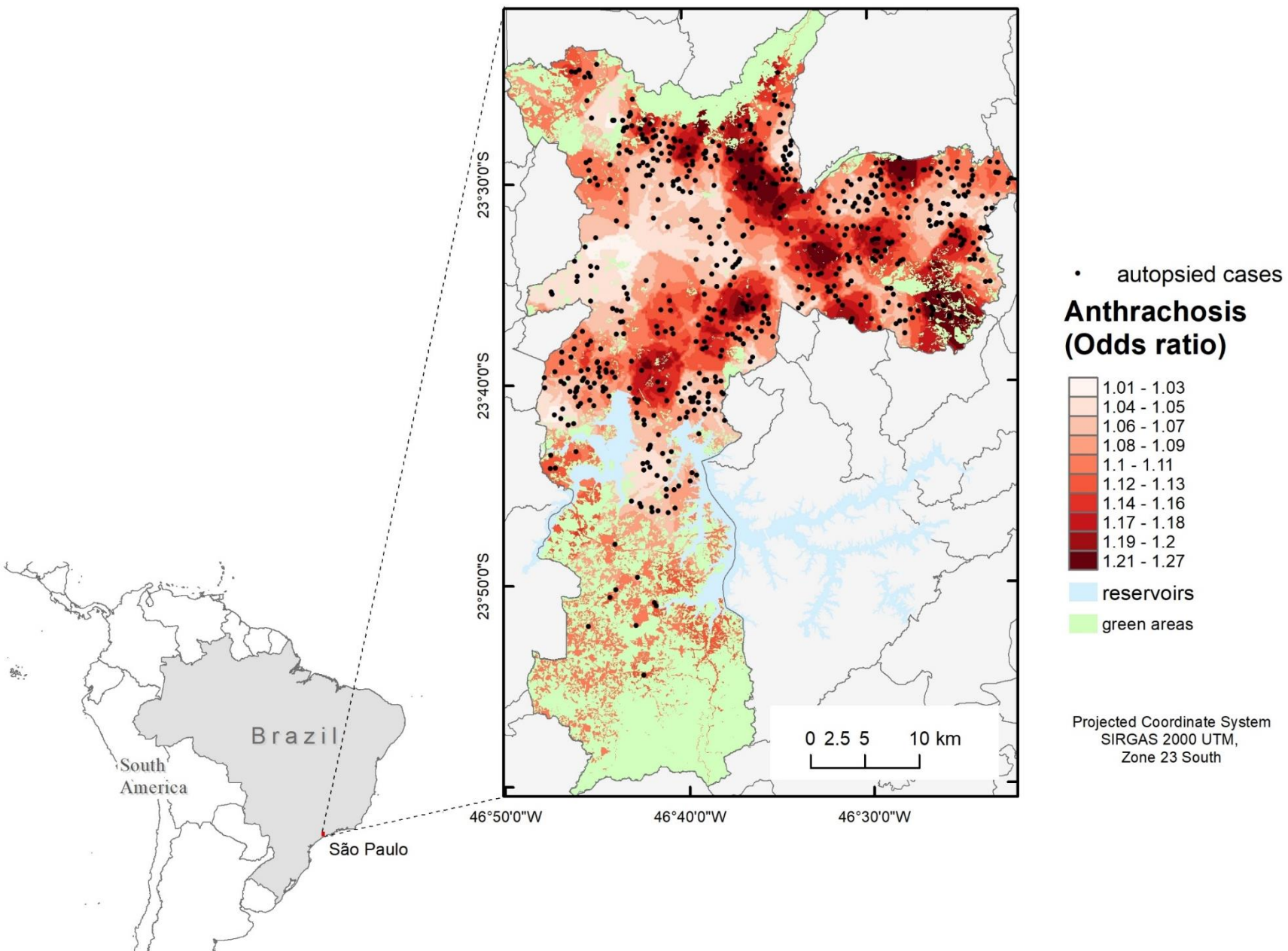




Spatial distribution of nitrogen dioxide in São Paulo (according to Ribeiro et al., 2019)

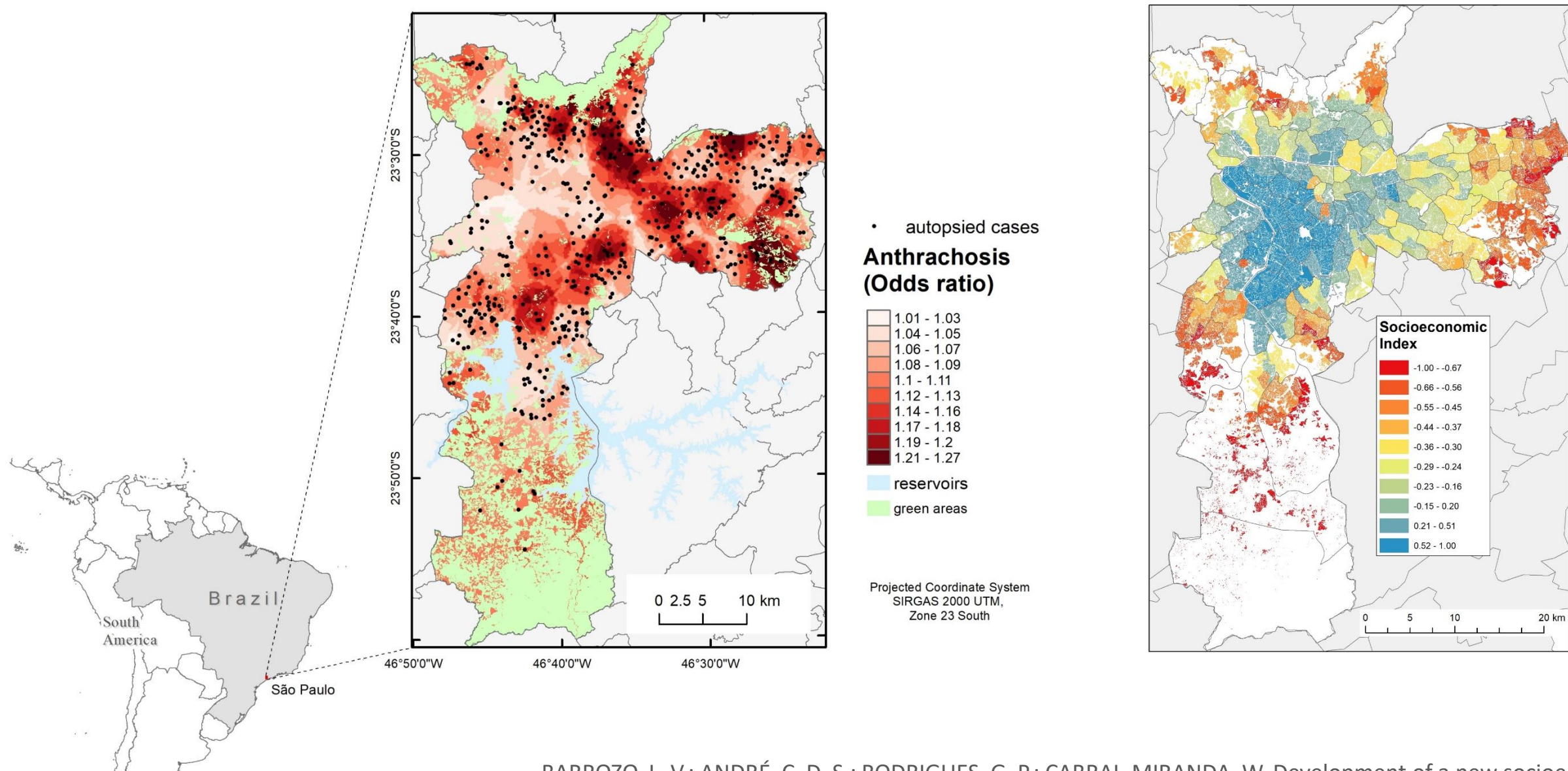


RIBEIRO et al. Incidence and mortality for respiratory cancer and traffic-related air pollution in São Paulo, Brazil. **Environmental Research** 170:243-251, 2019

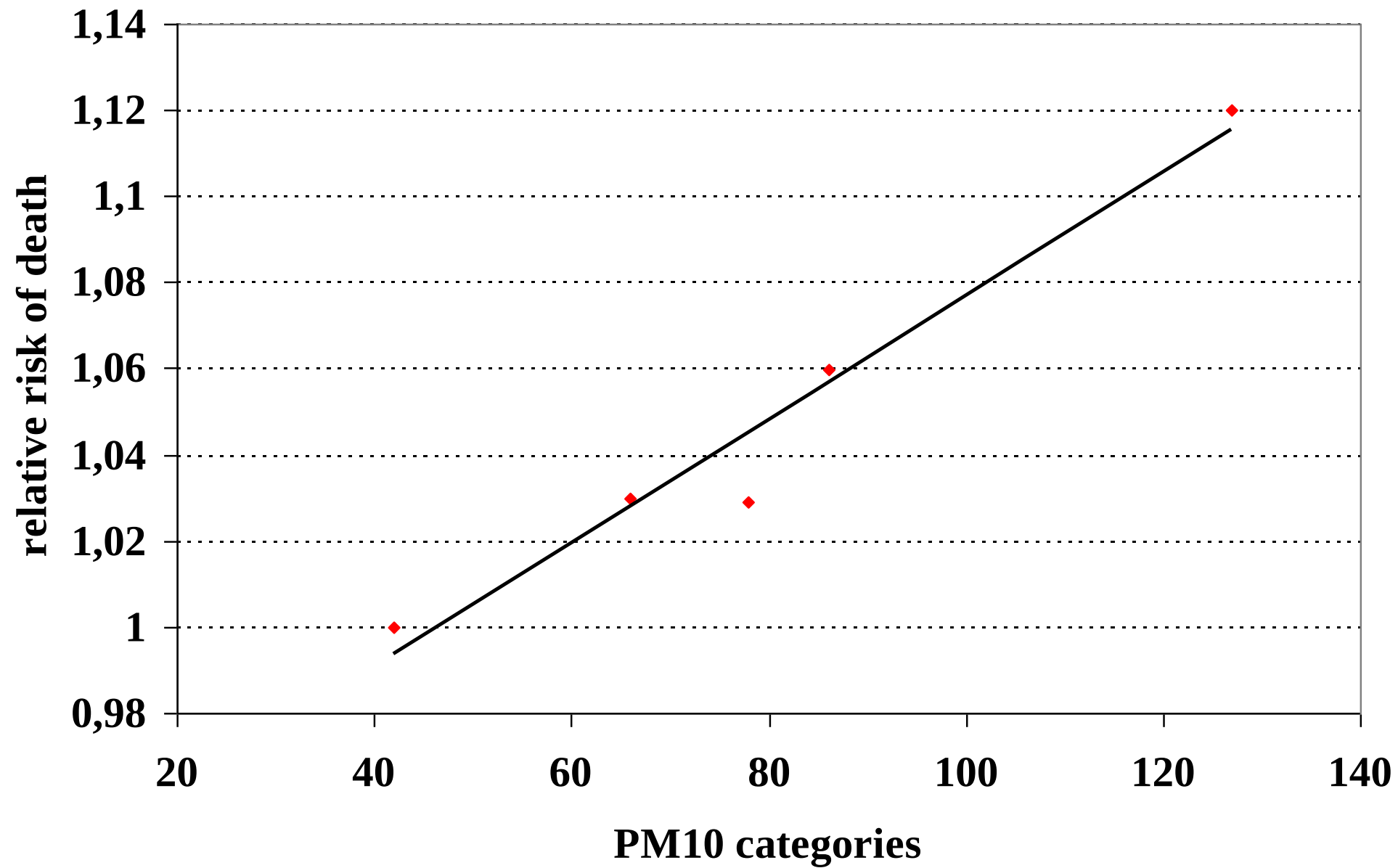


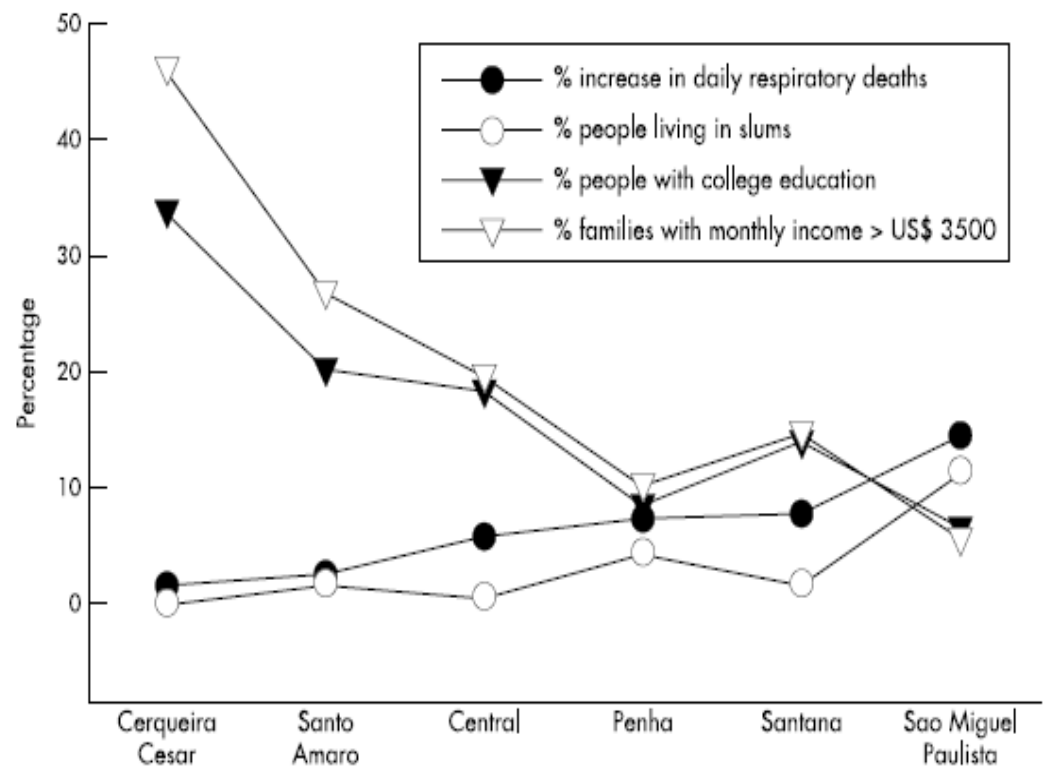
Odds ratio for anthracosis, controlling for:

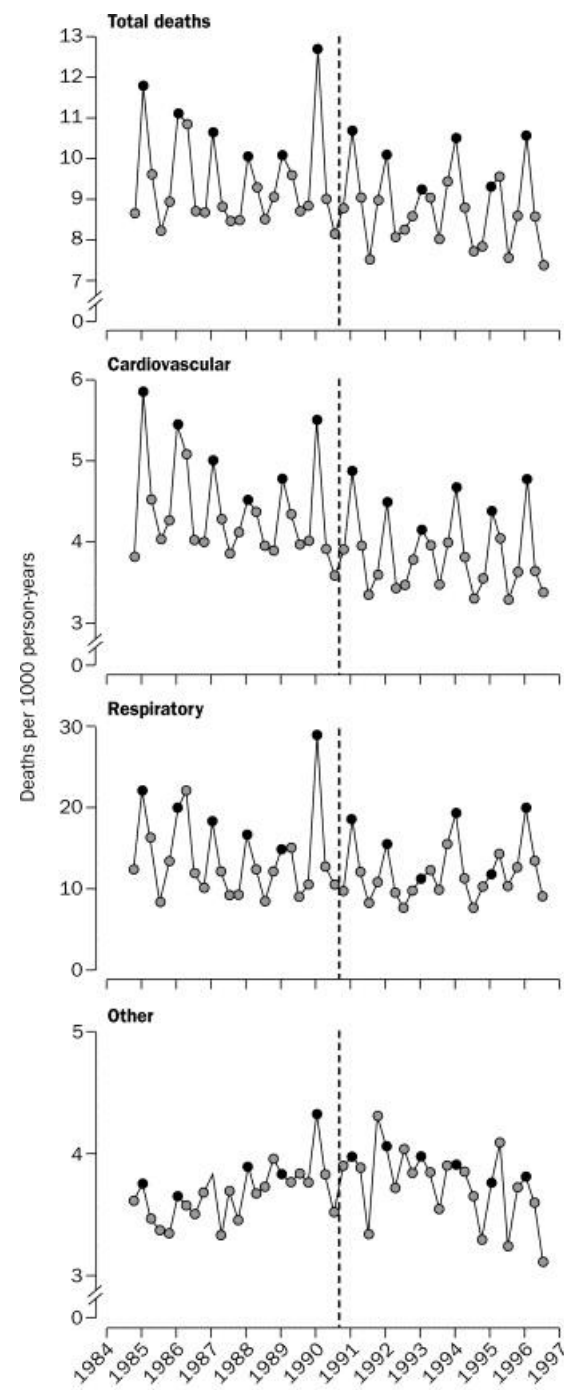
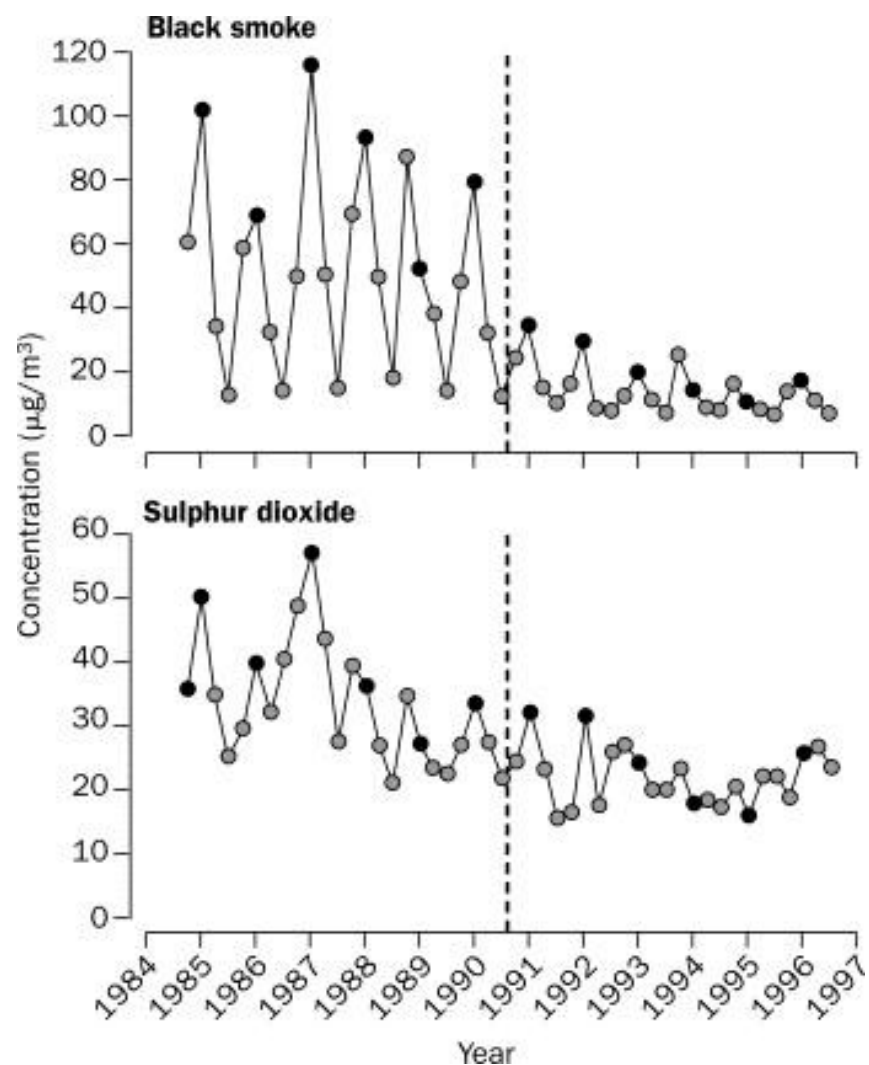
- Age,
- Time living in SP,
- Tobacco load,
- Passive smoking,
- Road density,
- Distance to the large roads,
- Socioeconomic index

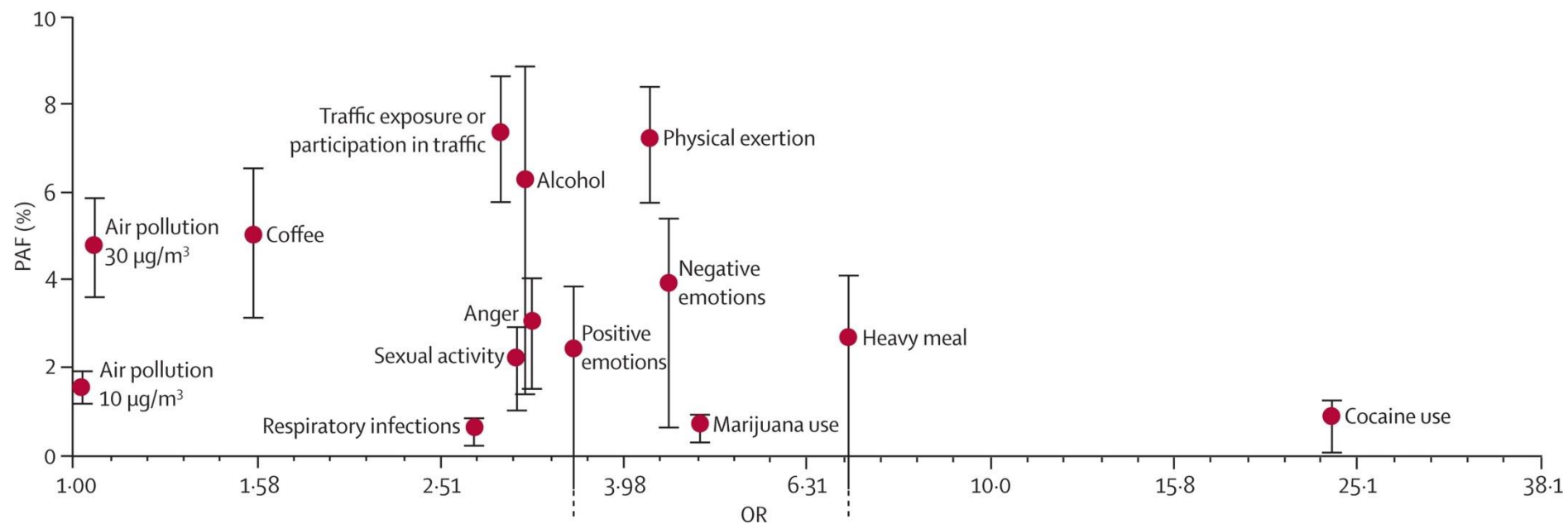


BARROZO, L. V.; ANDRÉ, C. D. S.; RODRIGUES, G. P.; CABRAL-MIRANDA, W. Development of a new socioeconomic index for health research in Brazil: first approach. In: 14th International Conference on Urban Health: the New Urban Agenda and Sustainable Development Goals, Coimbra. **Anais...** Coimbra: 2017.



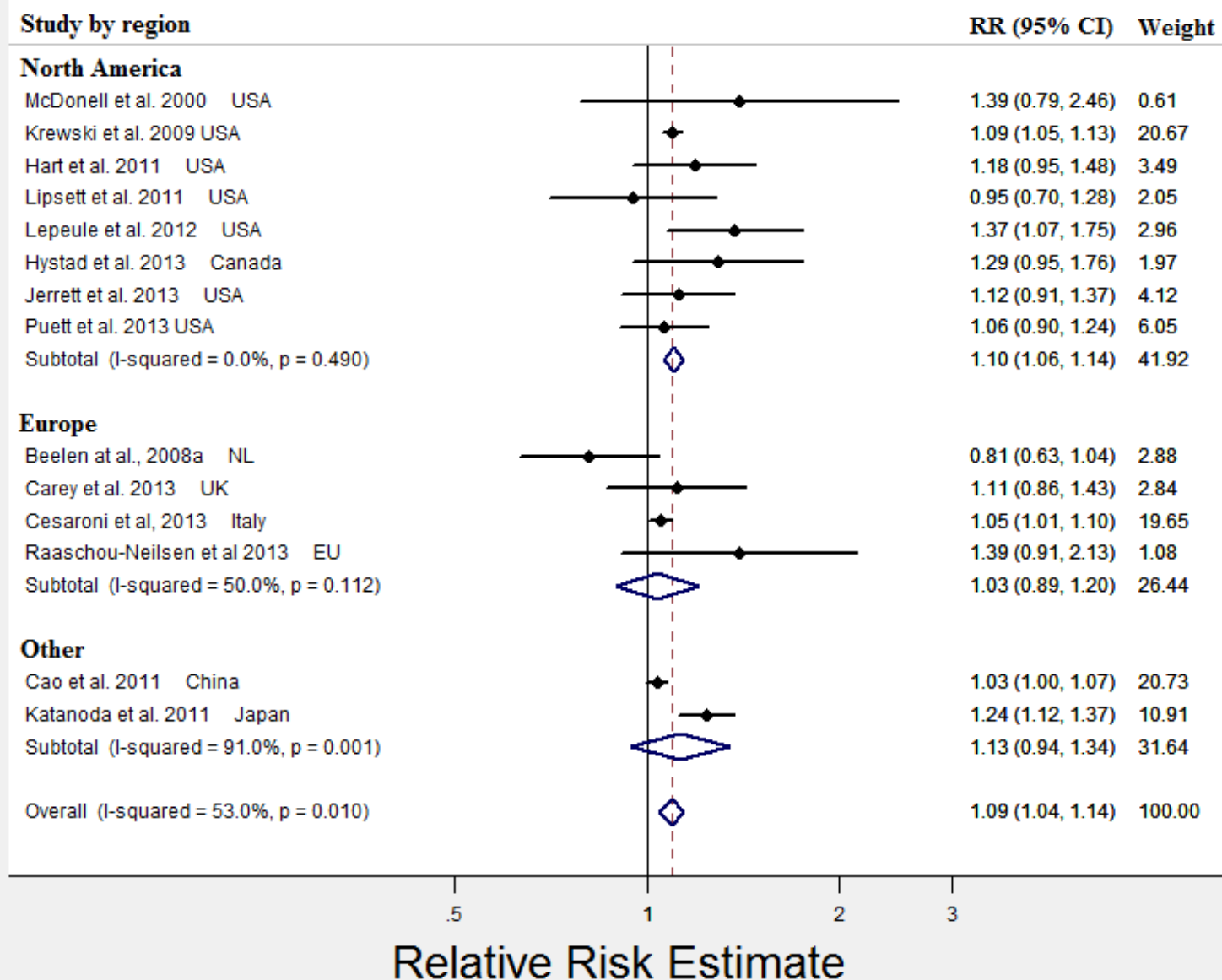




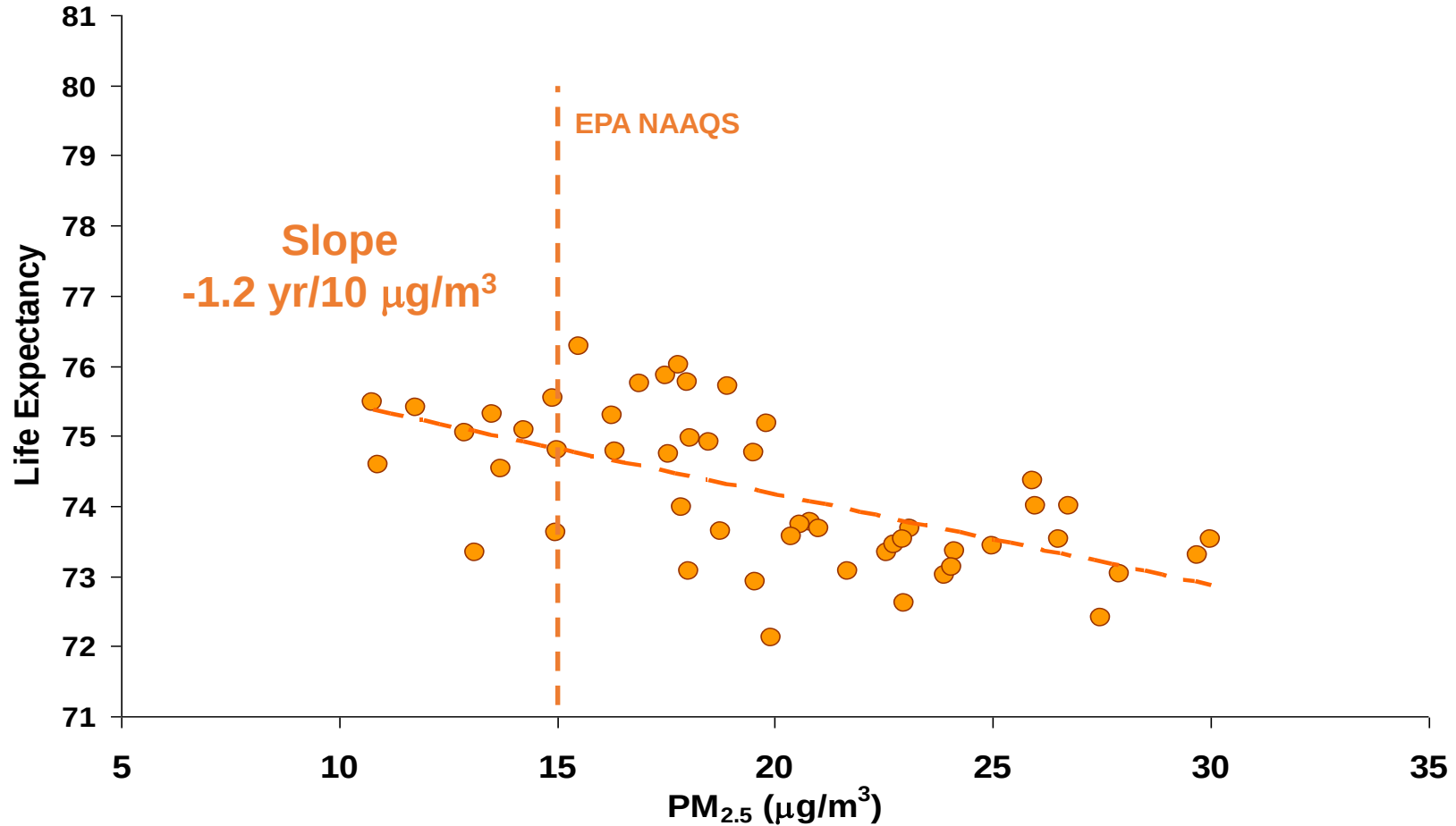


Lancet. 2011 Feb 26;377(9767):732-40

Lung Cancer and PM2.5 Meta-Analysis

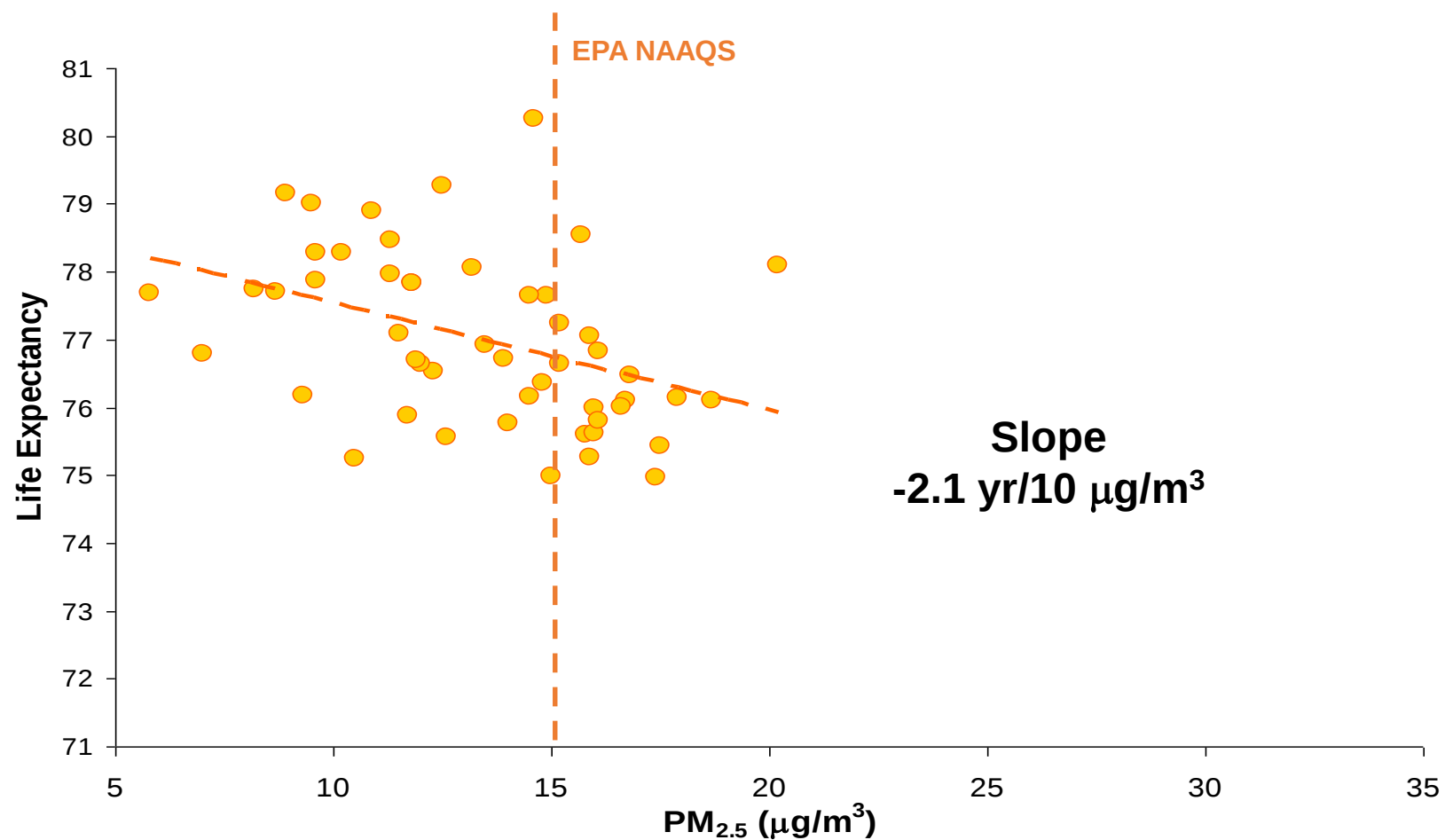


Life Expectancy vs PM_{2.5} 1978-82



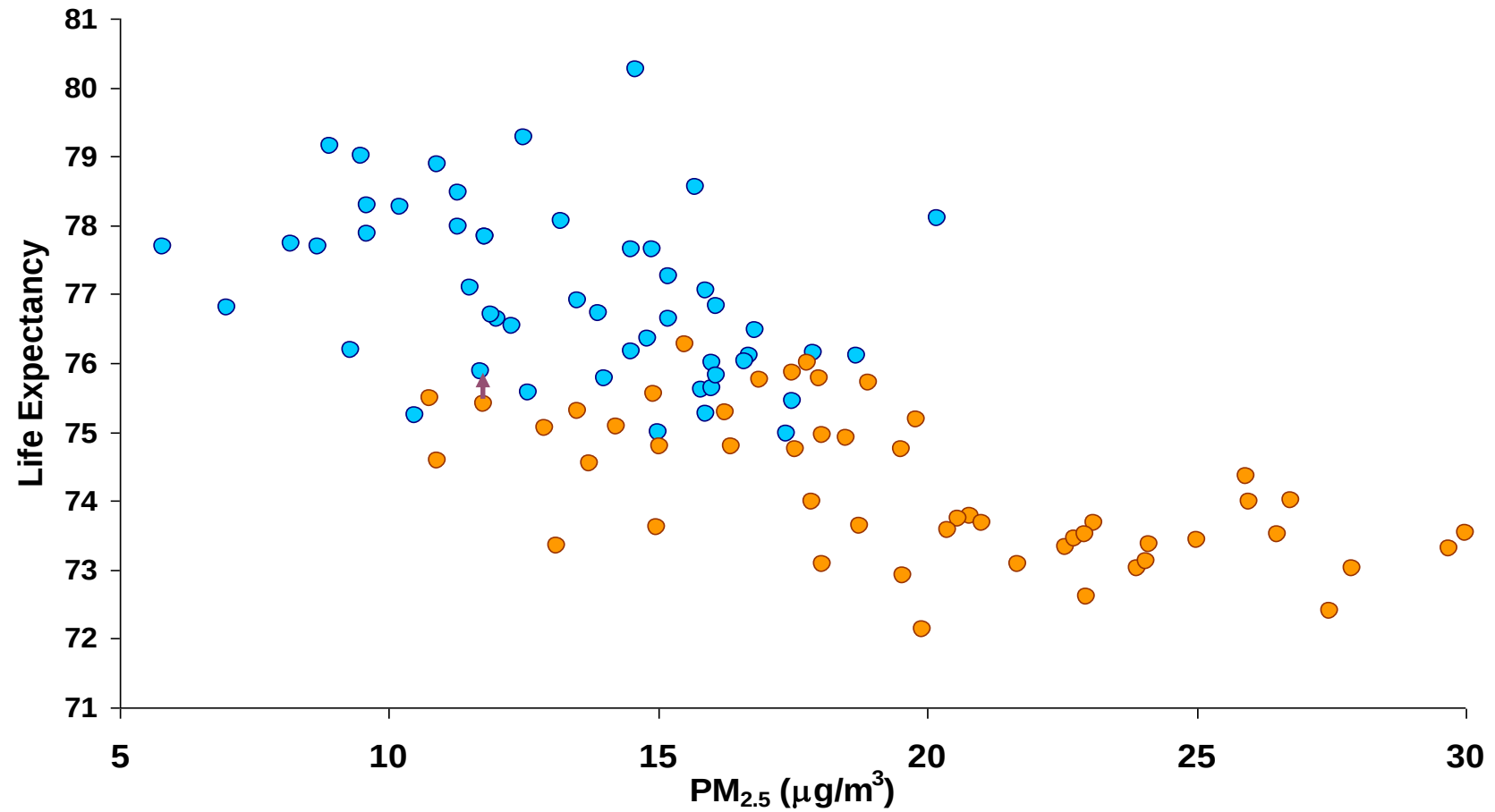
Pope, Ezzati, Dockery (NEJM 2009)

Life Expectancy vs PM_{2.5} 1997-2001



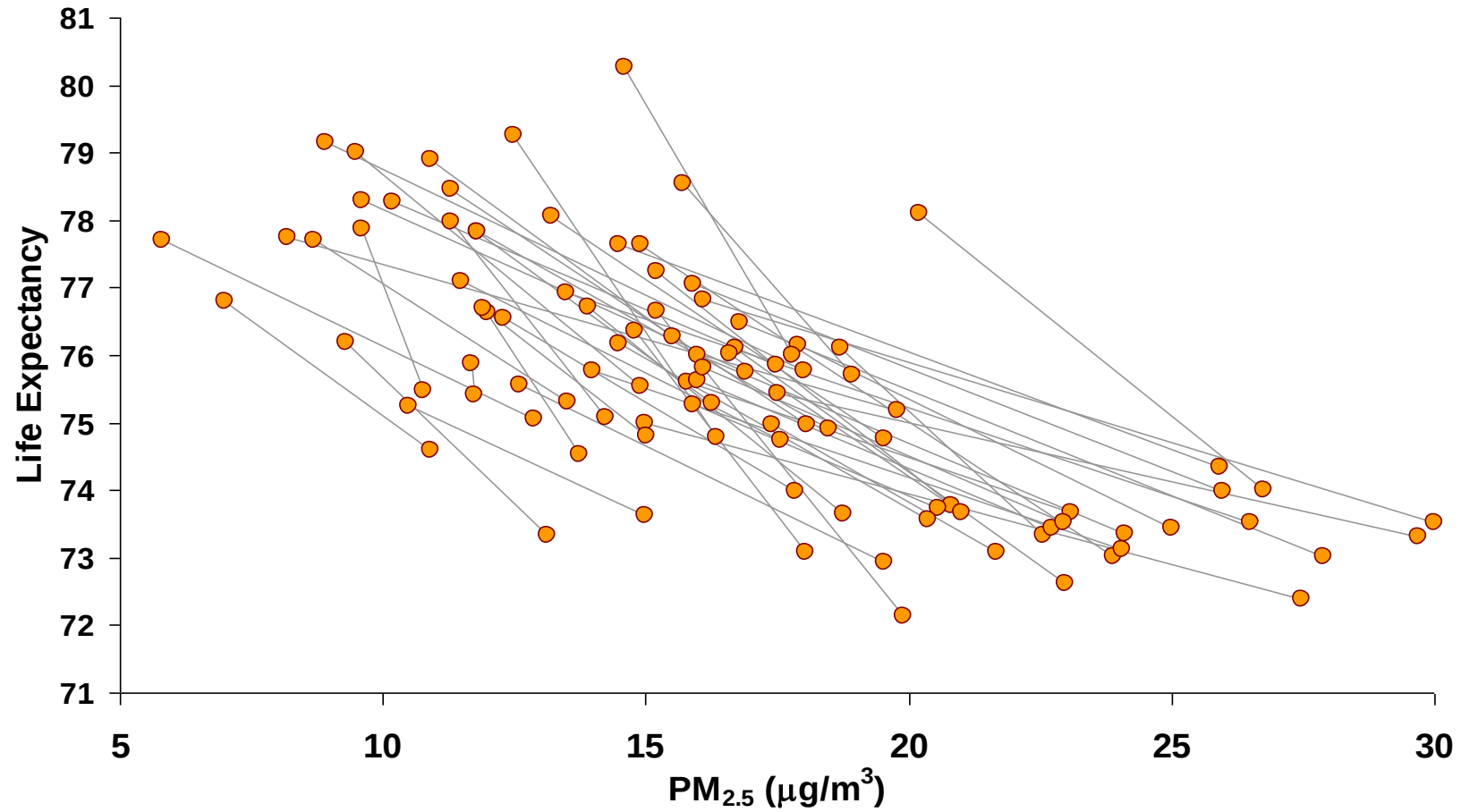
Pope, Ezzati, Dockery (NEJM 2009)

Life Expectancy vs PM_{2.5} 1980-2000

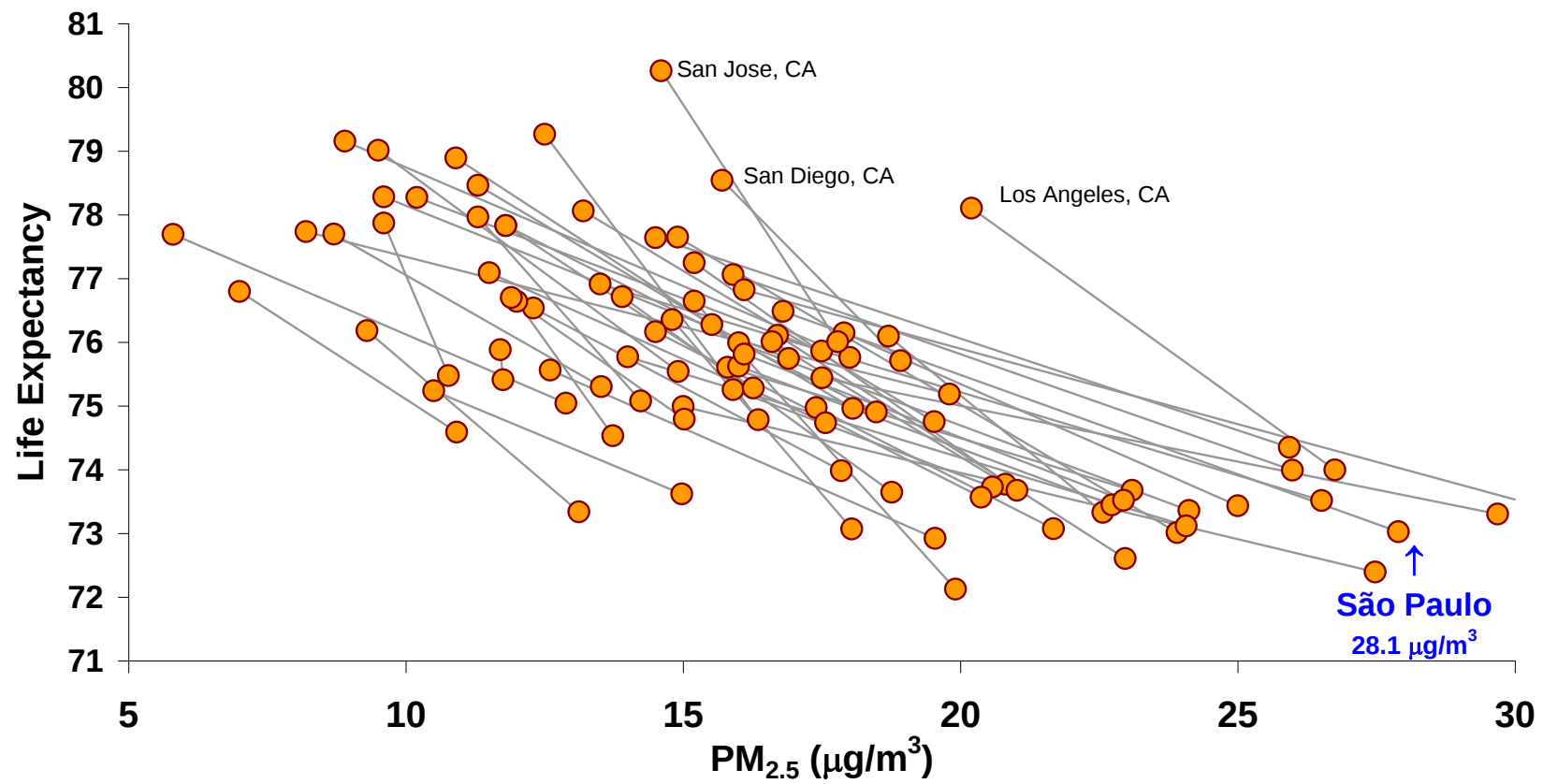


Pope, Ezzati, Dockery (NEJM 2009)

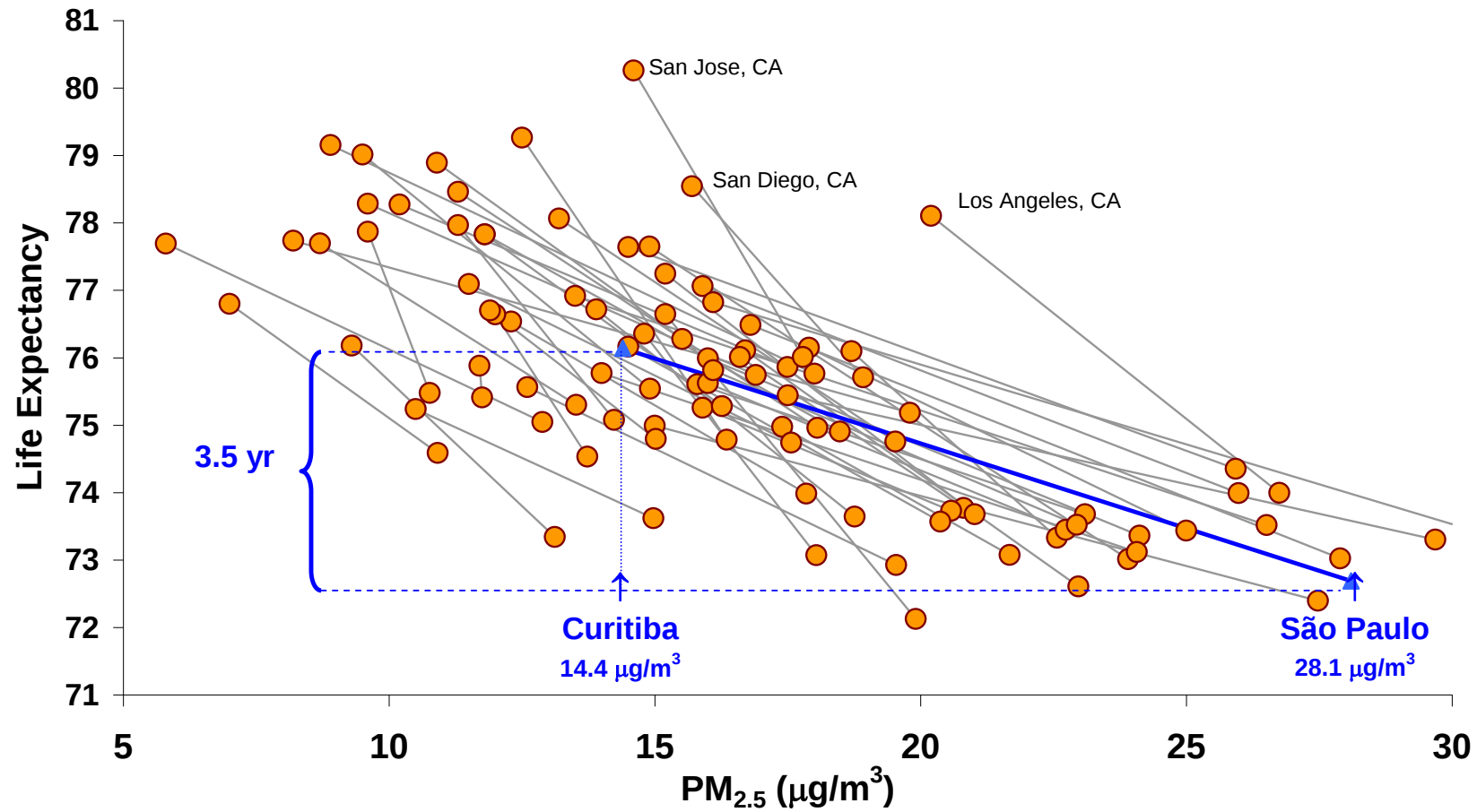
Life Expectancy vs PM_{2.5} 1980-2000

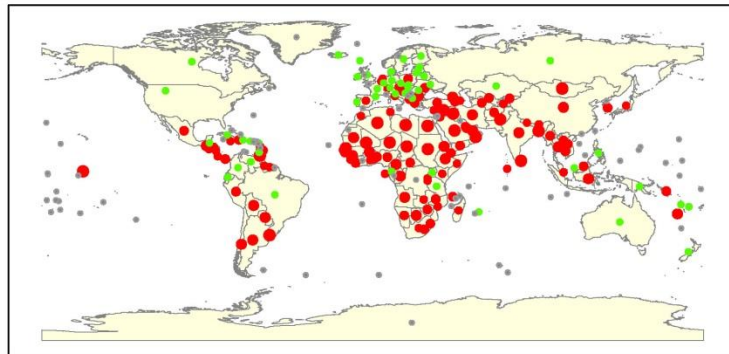


Life Expectancy vs PM_{2.5} 1980-2000



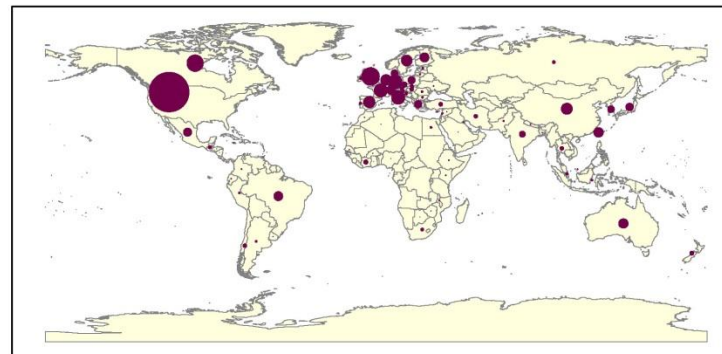
Life Expectancy vs PM_{2.5} 1980-2000





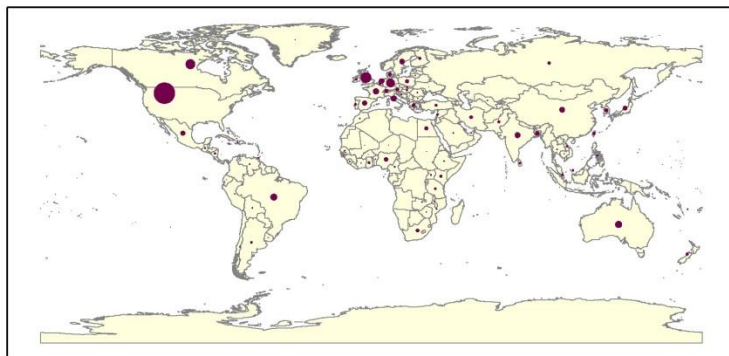
PM 10 ($\mu\text{g}/\text{m}^3$)

- 0 - 5
- 6 - 20
- 21 - 30
- 31 - 50
- 51 - 70
- 71 - 142



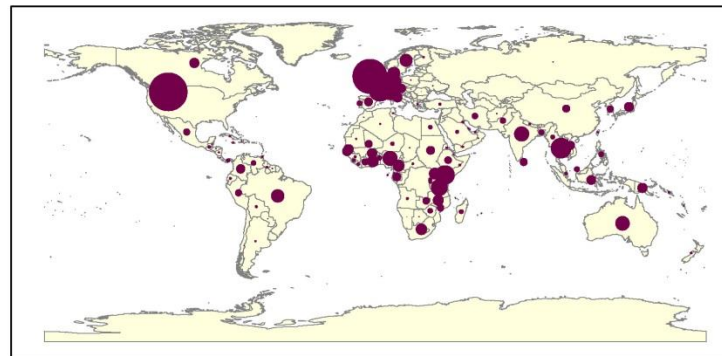
Air pollution articles

- 1
- 10
- 1,000



Water quality articles

- 1
- 10
- 1,000



Malaria articles

- 1
- 10
- 1,000