

Table 6. Ecologic Covariates Used in the Sensitivity Analysis of the American Cancer Society Study

| Ecologic Covariate | Number of Cities | | Description | Relative Risk for All-Cause Mortality in the Sulfate Cohort |
|----------------------------------|------------------|----------------|---|---|
| | Sulfates | Fine Particles | | |
| Demographic Data | | | | |
| Population Change | 139 | 48 | Percent net change in number of residents between 1980 and 1986. | 0.85 (0.81-0.89) |
| Race | | | | |
| Whites | 151 | 50 | Percent of persons in 1980 who classify themselves as Caucasian. | 1.02 (0.98-1.06) |
| African Americans | 151 | 50 | Percent of persons who classify themselves as African American (1980) | 1.01 (0.96-1.06) |
| Socio-economic Data | | | | |
| Income | 151 | 50 | Per capita income for 1979. | 0.93 (0.88-0.97) |
| Unemployment | 151 | 50 | Percent of total civilian labor force who were unemployed in 1986. | 1.12 (1.06-1.19) |
| Poverty | 151 | 50 | Percent of individuals living below the poverty level in 1979. | 0.95 (0.89, 1.01) |
| Education | 151 | 50 | Percentage of persons 25 years of age or older who indicated that they had completed 4 years of high school or some years of college. | 0.91 (0.86-0.96) |
| Income disparity | 151 | 50 | Gini coefficient, based on income distribution in 1979. | 0.88 (0.84, 0.93) |
| Health Services Data | | | | |
| Physicians | 138 | 48 | Number of professionally active, non-federal physicians with known addresses per 100,000 resident population as of July 1, 1985. | 0.95 (0.89-1.01) |
| Hospital beds | 139 | 48 | Number of hospital beds per 100,000 resident population as of July 1, 1985. | 1.13 (1.06-1.21) |
| Climate Data | | | | |
| Temperature | 135 | 46 | Average maximum daily temperature in Fahrenheit for the years 1980 to 1989 inclusive. | 0.88 (0.85-0.92) |
| Temperature variation | 135 | 46 | Average monthly variance in maximum daily temperature in Fahrenheit for the years 1980 to 1989 inclusive. | 1.18 (1.11-1.24) |
| Relative humidity | 95 | 37 | Average minimum daily relative humidity in whole percent for the years 1984 to 1989 inclusive was averaged by month. | 1.05 (0.99-1.12) |
| Variation relative humidity | 95 | 37 | Average monthly variance in minimum daily relative humidity for the years 1984 to 1989 inclusive. | 0.96 (0.90-1.02) |
| Physical Environment Data | | | | |
| Altitude | 110 | 38 | Measured as meters above sea-level. | 1.05 (0.99-1.12) |
| Water hardness | 109 | 49 | Concentration of CaCO ₃ (ppm) in drinking water, ca. 1970. | 1.08 (1.02-1.13) |
| Gaseous Co-pollutants | | | | |
| Carbon monoxide | 107 | 44 | All gaseous co-pollutants were measured as annual average of daily average concentrations for 1980 from residential, commercial or mobile monitors, except for ozone in which daily one-hour maximum concentrations were used | 0.98 (0.92-1.03) |
| Nitrogen dioxide | 74 | 33 | | 0.93 (0.87-0.99) |
| Ozone | 117 | 45 | | 0.93 (0.87-0.99) |
| Sulfur dioxide | 113 | 38 | | 1.30 (1.23-1.38) |