|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **No-PE**\* | **Low-PE** | | **Med-Low-PE** | | **Med-High-PE** | | **High-PE** | |
|  | **--** | **DE-** | **DE+** | **DE-** | **DE+** | **DE-** | **DE+** | **DE-** | **DE+** |
| No. of Beneficiaries | 13,176,937 | 1,221,558 | 790,820 | 1,333,627 | 824,248 | 1,131,319 | 835,733 | 753,219 | 717,874 |
| No. of Person-years | 110,093,570 | 4,321,587 | 2,505,366 | 4,273,579 | 2,394,897 | 3,687,253 | 2,676,813 | 3,236,837 | 3,025,157 |
| No. of Deaths | 5,434,451 | 214,430 | 127,428 | 211,834 | 122,674 | 185,160 | 136,745 | 154,964 | 143,965 |
| Mortality (%) | 4.9 | 5.0 | 5.1 | 5.0 | 5.1 | 5.0 | 5.1 | 4.8 | 4.8 |
| **Individual level factors** |  |  |  |  |  |  |  |  |  |
| Female (%) § | 57.6 | 56.4 | 56.5 | 56.6 | 56.9 | 56.5 | 56.8 | 56.1 | 56.3 |
| White (%) | 90.7 | 91.7 | 92.6 | 88.2 | 89.9 | 90.2 | 90.2 | 89.6 | 88.4 |
| Medicaid Eligibility (%) | 10 | 12.2 | 12.9 | 13.3 | 11.7 | 12.1 | 12.5 | 11 | 10.8 |
| Age (year) | 75.1±7.6 | 74.8±7.5 | 74.9±7.5 | 74.8±7.5 | 74.9±7.6 | 74.9±7.5 | 74.9±7.5 | 74.6±7.5 | 74.6±7.5 |
| **ZIP Code-level environmental covariates** |  |  |  |  |  |  |  |  |  |
| PE of COGD | 5.0±14.0 | 12.0±19.9 | 12.9±19.4 | 12.8±19.9 | 13.8±22.5 | 20.2±25.2 | 18.5±24.0 | 15.4±25.7 | 13.7±22.9 |
| PM2.5 (μg/m3) | 10.3±2.7 | 8.9±2.6 | 9.1±2.4 | 9.1±2.3 | 9.5±2.0 | 9.3±2.1 | 9.1±2.0 | 9.3±1.6 | 9.1±1.4 |
| Development Ratio (%)‡ | 40.8±33.7 | 16.9±21.9 | 14.2±18.2 | 27.3±31.5 | 24.7±28.2 | 24.1±27.6 | 22.0±23.8 | 31.3±30.9 | 37.6±34.9 |
| **ZIP Code-level**  **socioeconomic covariates** |  |  |  |  |  |  |  |  |  |
| Pop Density  (100 person/km2) | 17.7±25.9 | 4.6± 8.8 | 3.5±7.0 | 9.6±15.7 | 7.6±13.5 | 7.7±12.1 | 5.6±9.0 | 10.8±13.9 | 13.9±16.6 |
| Mean Household  Income (×103 $) | 25.0±13.8 | 25.7±13.2 | 27.7±14.2 | 27.2±15.5 | 25.2±12.0 | 25.6±13.0 | 25.4±12.2 | 22.3±12.9 | 21.6±12.4 |
| No High School (%) | 8.2±5.8 | 9.7±5.5 | 10.1±5.6 | 10.4±7.2 | 9.9±6.2 | 9.6±5.8 | 9.9±5.4 | 8.8±5.8 | 8.6±6.2 |
| **County level behavioral risk covariates** |  |  |  |  |  |  |  |  |  |
| BMI\* | 27.0±1.0 | 27.4±1.2 | 27.5±1.3 | 27.5±1.1 | 27.5±1.1 | 27.5±1.0 | 27.6±1.0 | 27.4±1.2 | 27.4±1.0 |
| Non-Smoker (%) | 46.9±6.5 | 46.7±8.0 | 47.6±7.8 | 44.9±8.7 | 46.7±7.8 | 46.6±7.4 | 47.0±7.2 | 43.9±7.4 | 45.4±6.6 |

**Table 1.** Characteristics of population grouped by PE and DE to UOGD.

Continuous PE was categorized by three PE percentiles: 25th percentile (0.03), 50th percentile (0.21), and 75th percentile (1.71) into four levels. These four levels approximately correspond to living relatively far away from UOGD (Low-PE), living around the ZIP Code where scattered UOGD exists (Med-Low-PE), living within the ZIP Code where scattered UOGD happens or living around the ZIP Code where dense UOGD exists (Med-High-PE), and living within a ZIP Code where dense UOGD exists (High PE). DE+ indicates the downwind sub-level and DE- indicates the upwind sub-level.

§ Individual-level categorical covariates are reported as a percentage.

Individual-level numeric covariates are reported as a mean ± standard deviation.

ZIP Code-level covariates are reported as mean ± standard deviation.

‡Development ratio is calculated as the percent of land in a ZIP Code developed for residential and industrial use.

\*BMI denotes body-mass index (the weight in kilograms divided by the square of the height in meters).