Supplemental Appendix Table A.3: US COVID-19 death rate per 100 000 person-years, rate differences, and rate ratios by county characteristics\*, restricted to 1 099 counties with ≥50 confirmed COVID-19 cases as of May 5, 2020 (67 809 deaths, 277 333 230 population)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Number of counties | Number of deaths | Population† | Death rate per 100,000 person-years | (95% CI) |  | Rate difference per 100,000 person-years | (95% CI) |  | Rate ratio | (95% CI) |  |
| % poverty (categories) |  |  |  |  |  |  |  |  |  |  |  |  |
| 0-4.9% | 18 | 1 051 | 4 105 431 | 89.9 | (84.5 | , 95.3) | 0.0 | (reference) |  | 1.00 | (reference) | |
| 5-9.9% | 210 | 17 770 | 64 930 820 | 96.1 | (94.7 | , 97.5) | 6.2 | (0.6 | , 11.8) | 1.07 | (1.00 | , 1.14) |
| 10-14.9% | 364 | 18 620 | 93 736 737 | 69.8 | (68.8 | , 70.8) | - 20.1 | (- 25.7 | , - 14.6) | 0.78 | (0.73 | , 0.83) |
| 15-19.9% | 293 | 15 721 | 87 260 600 | 63.3 | (62.3 | , 64.3) | - 26.6 | (- 32.2 | , - 21.1) | 0.70 | (0.66 | , 0.75) |
| 20-100% | 214 | 14 647 | 27 299 642 | 188.4 | (185.4 | , 191.5) | 98.5 | (92.3 | , 104.8) | 2.10 | (1.97 | , 2.23) |
| |  | | --- | | Index of Concentration at the Extremes (high income white households versus low income black households) | | | | | | | | | | | | | |
| Q1: [-0.522,0.114]‡ | 333 | 19 636 | 50 041 153 | 137.8 | (135.9 | , 139.7) | 25.3 | (22.9 | , 27.8) | 1.23 | (1.20 | , 1.25) |
| Q2: (0.114,0.159] | 182 | 10 798 | 52 459 939 | 72.3 | (70.9 | , 73.7) | - 40.2 | (- 42.3 | , - 38.1) | 0.64 | (0.63 | , 0.66) |
| Q3: (0.159,0.205] | 196 | 6 687 | 53 682 957 | 43.7 | (42.7 | , 44.8) | - 68.7 | (- 70.6 | , - 66.9) | 0.39 | (0.38 | , 0.40) |
| Q4: (0.205,0.283] | 222 | 10 170 | 57 090 294 | 62.6 | (61.3 | , 63.8) | - 49.9 | (- 51.9 | , - 48.0) | 0.56 | (0.54 | , 0.57) |
| Q5: (0.283,0.536] | 166 | 20 518 | 64 058 887 | 112.5 | (111.0 | , 114.0) | 0.0 | (reference) |  | 1.00 | (reference) | |
| % crowding (quintiles) |  |  |  |  |  |  |  |  |  |  |  |  |
| Q1: [0,0.0147] | 298 | 8 682 | 50 051 486 | 60.9 | (59.6 | , 62.2) | 0.0 | (reference) |  | 1.00 | (reference) | |
| Q2: (0.0147,0.0212] | 293 | 10 111 | 53 647 560 | 66.2 | (64.9 | , 67.5) | 5.3 | (3.5 | , 7.1) | 1.09 | (1.06 | , 1.12) |
| Q3: (0.0212,0.0306] | 247 | 14 319 | 53 431 942 | 94.1 | (92.6 | , 95.7) | 33.2 | (31.2 | , 35.2) | 1.54 | (1.5 | , 1.6) |
| Q4: (0.0306,0.0491] | 173 | 12 111 | 59 227 513 | 71.8 | (70.5 | , 73.1) | 10.9 | (9.1 | , 12.7) | 1.18 | (1.15 | , 1.21) |
| Q5: (0.0491,0.493] | 88 | 22 586 | 60 974 729 | 130.1 | (128.4 | , 131.8) | 69.2 | (67.0 | , 71.3) | 2.14 | (2.08 | , 2.19) |
| % percent population of color | |  |  |  |  |  |  |  |  |  |  |  |
| Q1: [0,0.172] | 344 | 4 357 | 36 377 357 | 42.1 | (40.8 | , 43.3) | 0.0 | (reference) |  | 1.00 | (reference) | |
| Q2: (0.172,0.302] | 268 | 10 419 | 57 155 386 | 64.0 | (62.8 | , 65.3) | 22.0 | (20.2 | , 23.7) | 1.52 | (1.47 | , 1.58) |
| Q3: (0.302,0.443] | 237 | 15 551 | 64 770 170 | 84.3 | (83.0 | , 85.6) | 42.3 | (40.4 | , 44.1) | 2.00 | (1.94 | , 2.07) |
| Q4: (0.443,0.61] | 151 | 14 906 | 58 455 721 | 89.6 | (88.1 | , 91.0) | 47.5 | (45.6 | , 49.4) | 2.13 | (2.1 | , 2.2) |
| Q5: (0.61,1] | 99 | 22 576 | 60 574 596 | 130.9 | (129.2 | , 132.6) | 88.8 | (86.7 | , 90.9) | 3.11 | (3.01 | , 3.21) |

\* Quintile cutpoints defined on the distribution of all US counties.

† Population totals can vary due to counties with missing area-based socioeconomic measures.

‡ [*a,b*] indicates interval where value *x* is *a*≤*x*≤*b*; (*a,b*] indicates interval where value *x* is *a*<*x*≤*b*.