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) |
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| 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*.