

APPENDIX

Supplementary Digital Content, Figure 1. Flow diagram for the analytic data set.

Supplementary Digital Content, Figure 2. Incidence of COVID-19 Deaths per 100,000 residents vs. county percentage of non-Hispanic Black residents.

Supplementary Digital Content, Figure 3. Incidence of COVID-19 Deaths per 100,000 residents vs. county percentage of Hispanic residents.

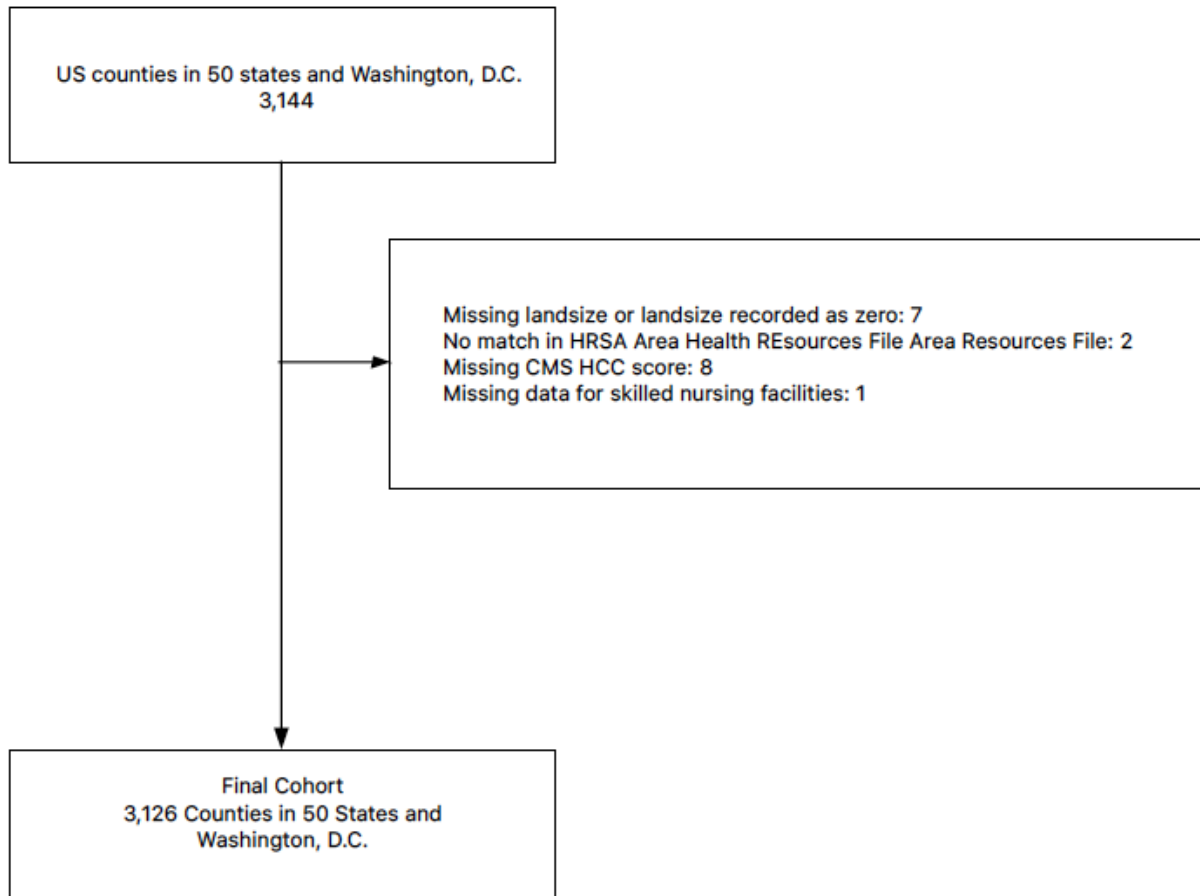
Supplementary Digital Content, Figure 4. Calibration plots the fully adjusted model.

Supplementary Digital Content, Table 1. List of key variables and data sources.

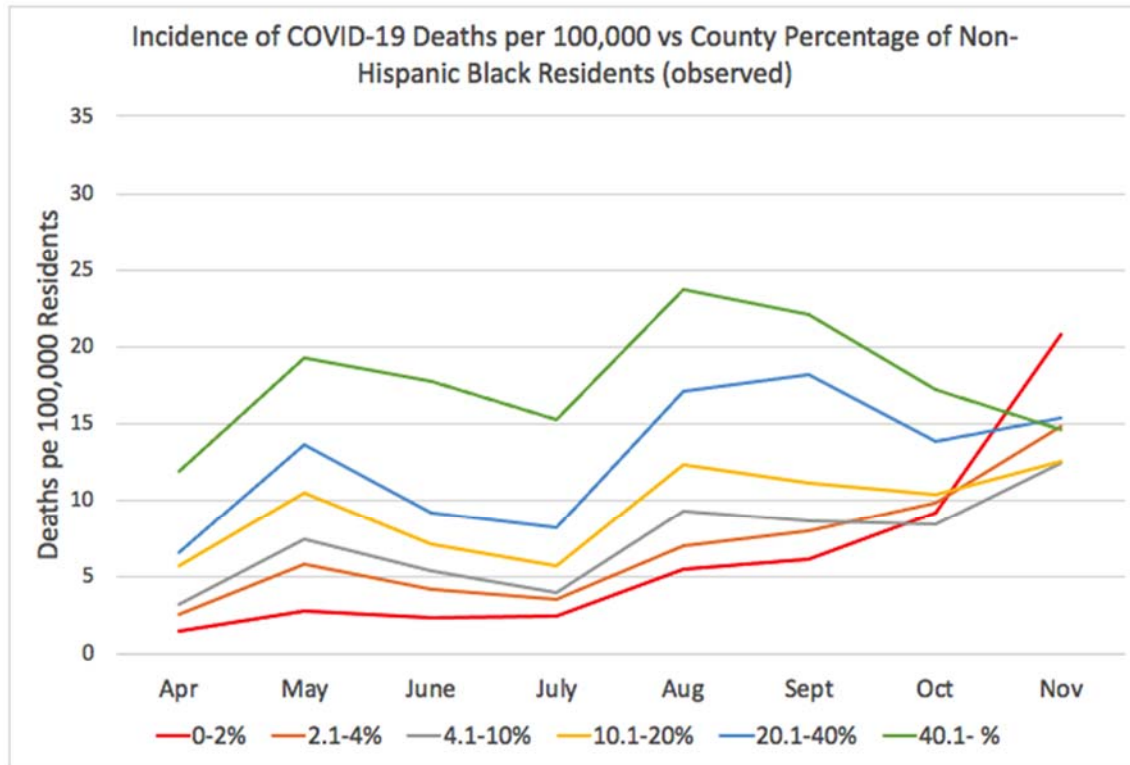
Supplementary Digital Content, Table 2. Characteristics of US counties by proportion of non-Hispanic Black and Hispanic residents.

Supplementary Digital Content, Table 3. Risk of COVID-19 Death as a function of county percentage of non-Hispanic Black and Hispanic residents.

Supplementary Digital Content, Figure 1. Flow diagram for the analytic data set.

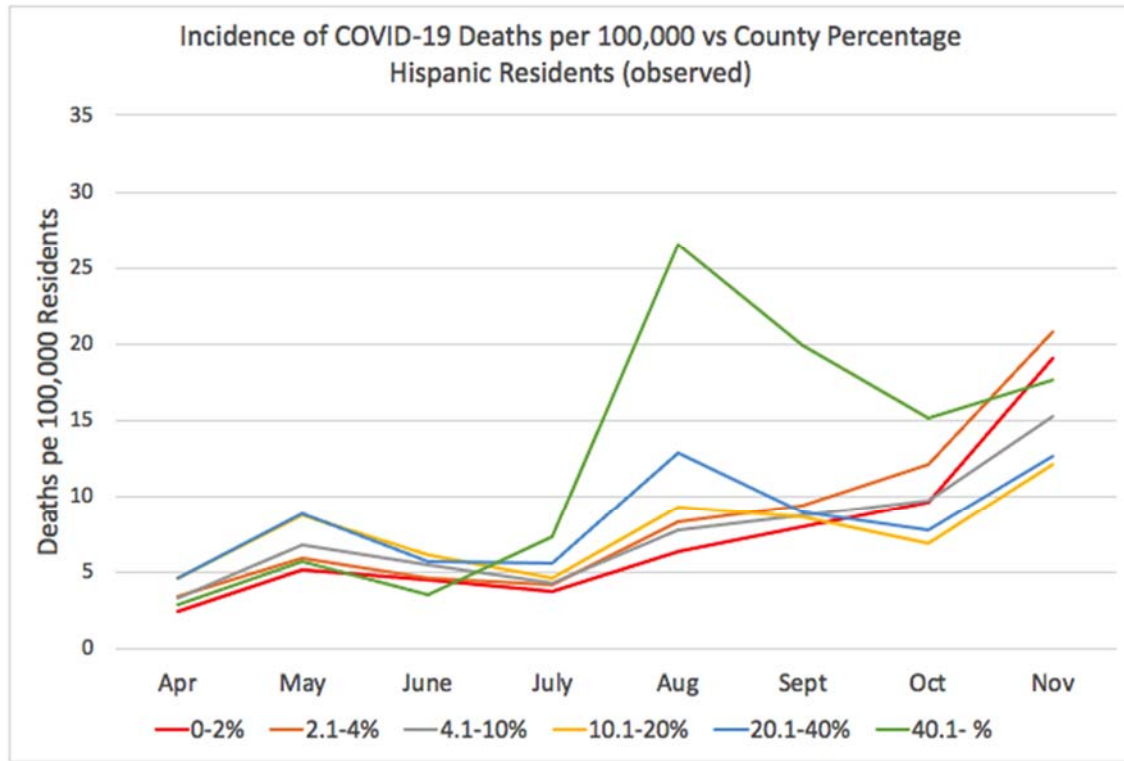


Supplementary Digital Content, Figure 2. Incidence of COVID-19 Deaths per 100,000 residents vs. county percentage of non-Hispanic Black residents.



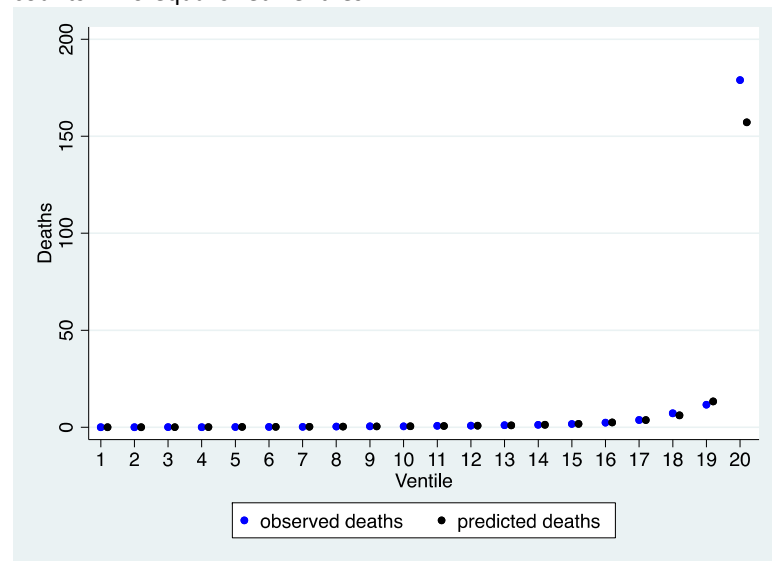
Based on the mean of the county number of incident deaths per 100,000 residents for each time period.

Supplementary Digital Content, Figure 3. Incidence of COVID-19 Deaths per 100,000 residents vs. county percentage of Hispanic residents.

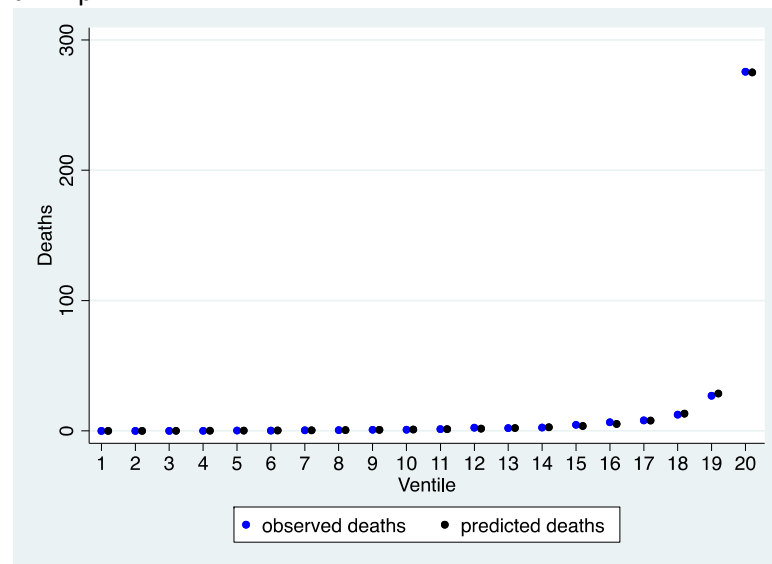


Based on the mean of the county number of incident deaths per 100,000 residents for each time period.

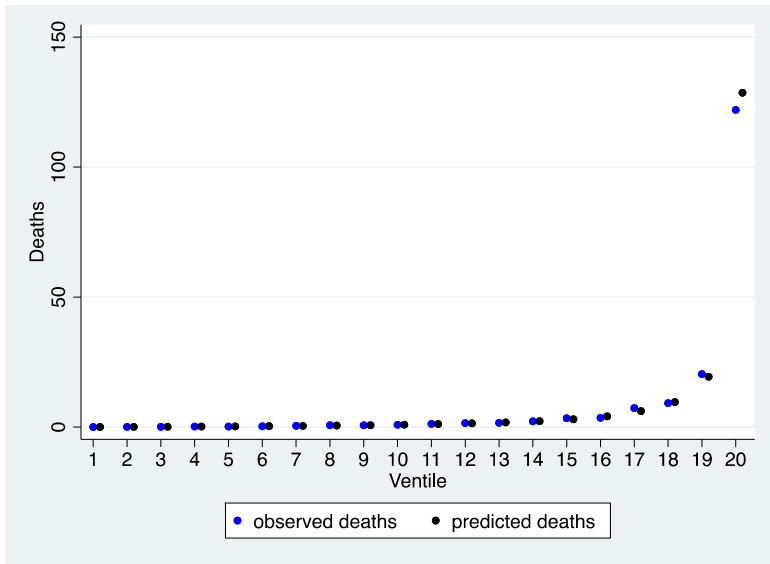
Supplementary Digital Content, Figure 4. Calibration Plots for each time interval. Each figure represents the number of observed and predicted death counts in 20-equal sized ventiles.



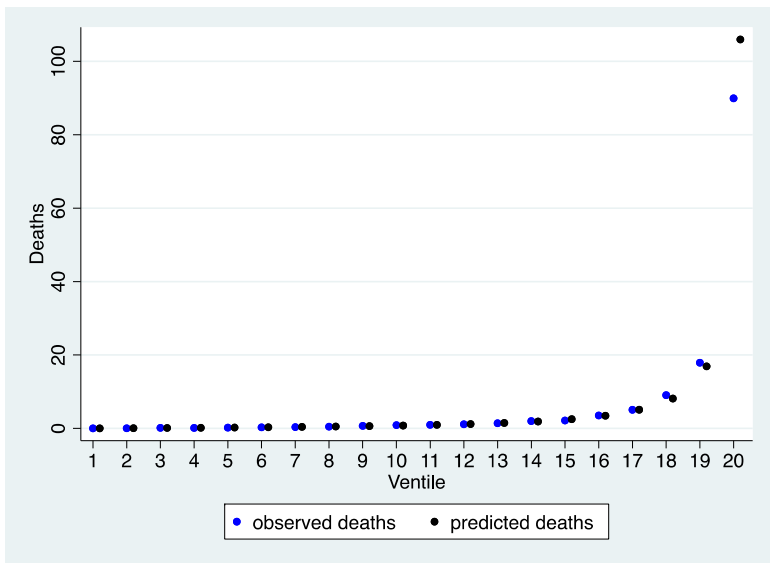
a. April



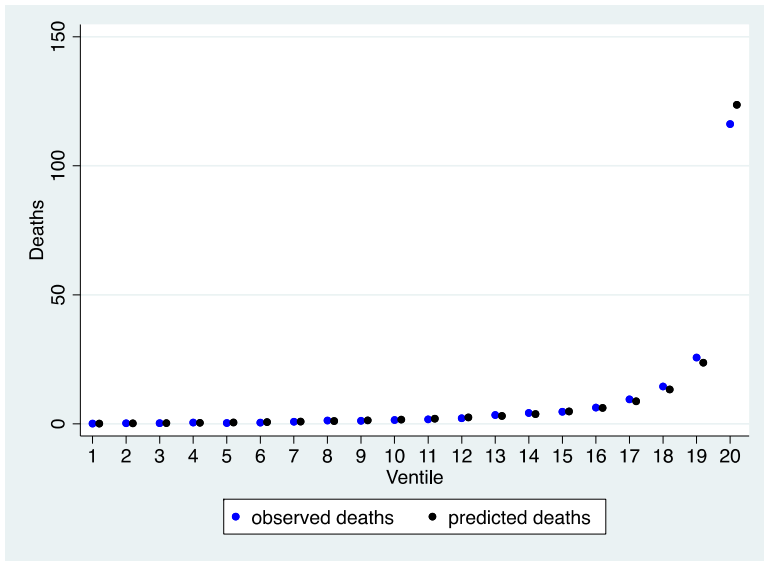
b. May



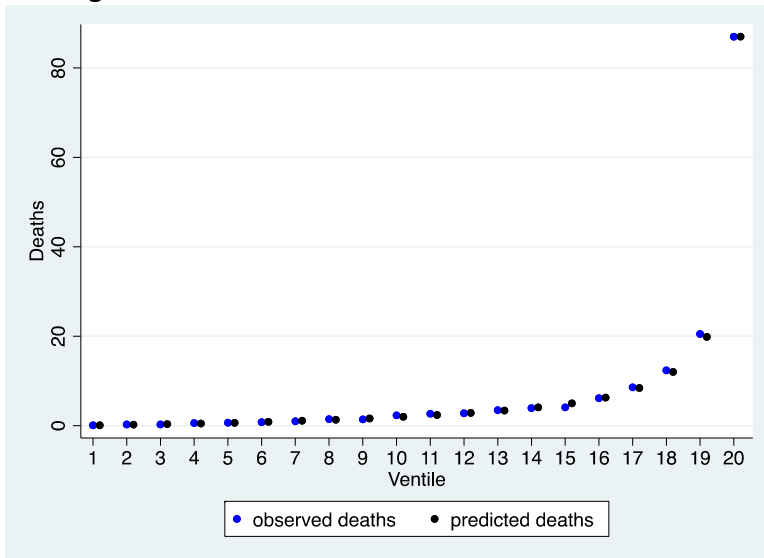
c. June



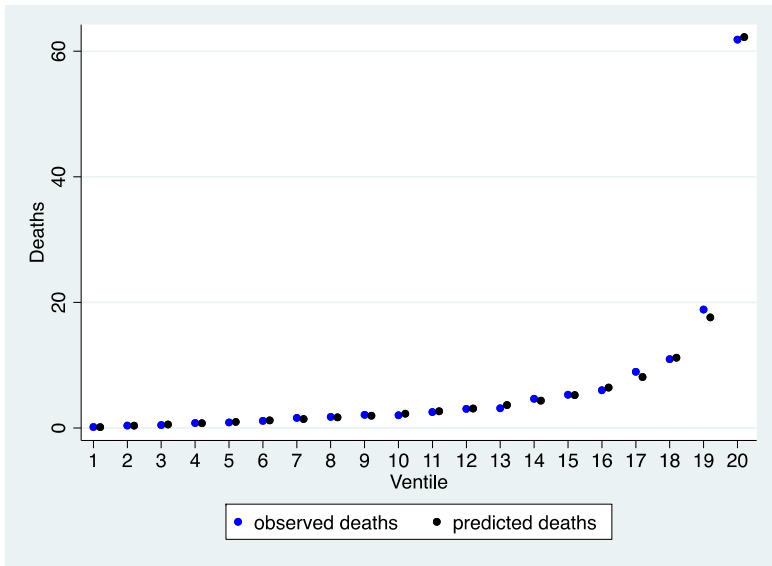
d. July



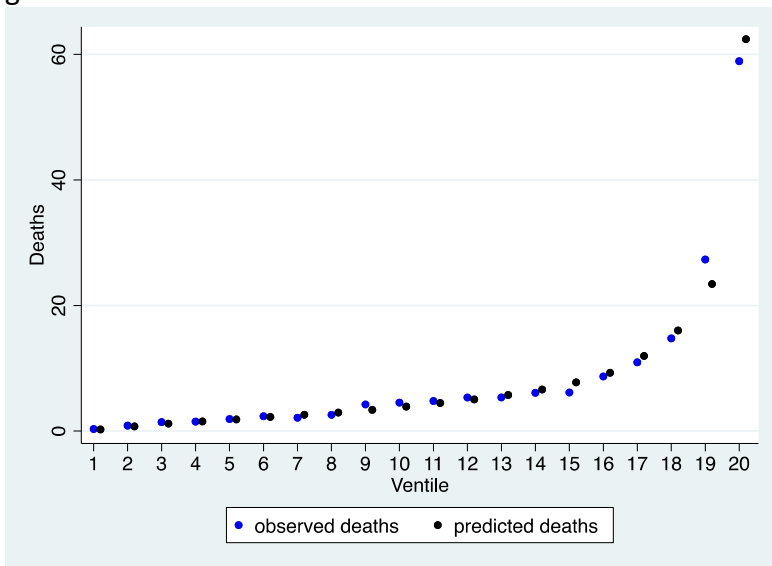
e. August



f. September



g. October



h. November

Supplementary Digital Content, Table 1

List of key variables and data sources		
Variable name	Name of source	URL
Dependent variable		
Deaths	USA Facts	https://usafacts.org/visualizations/coronavirus-covid-19-spread-map/.
Independent variables		
Demographics		
Race and ethnicity	US Census Bureau	https://data.nber.org/data/census-intercensal-county-population-age-sex-race-hispanic.html
Sex	US Census Bureau	https://data.nber.org/data/census-intercensal-county-population-age-sex-race-hispanic.html
Age	US Census Bureau	https://data.nber.org/data/census-intercensal-county-population-age-sex-race-hispanic.html
Comorbidity burden		
CMS-HCC score	CMS Geographical Variation PUF	https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Geographic-Variation.
Rurality		
Urban-Rural classification	US Census Bureau	https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html
Social determinants of health		
Essential workers	American Community Survey	https://www.census.gov/programs-surveys/acs/data.html
Public transportation	American Community Survey	https://www.census.gov/programs-surveys/acs/data.html
Household units with >1 person per room	Area Health Resources file	https://data.hrsa.gov/topics/health-workforce/ahrf
Household poverty	Area Health Resources file	https://data.hrsa.gov/topics/health-workforce/ahrf
Healthcare resources	Area Health Resources file	_
Primary care doctors per 10,000 residents	Area Health Resources file	https://data.hrsa.gov/topics/health-workforce/ahrf
Hospital beds per 100,000 residents	Area Health Resources file	https://data.hrsa.gov/topics/health-workforce/ahrf
ICU beds per 100,000 residents	Area Health Resources file	https://data.hrsa.gov/topics/health-workforce/ahrf
Nursing home/NSF beds per 100,000 residents	Area Health Resources file	https://data.hrsa.gov/topics/health-workforce/ahrf

Supplementary Digital Content, Table 2

Characteristics of US counties by proportion of non-Hispanic black and Hispanic residents.

Characteristics	All Counties (n = 3,126)	Non-Hispanic Blacks <= 10% (n = 2338)	Non-Hispanic Blacks > 10% (n = 788)	P	Hispanic <= 10% (n = 2384)	Hispanic > 10% (n = 742)	P
non-Hispanic black residents, %	8.97	2.21	29.0	<0.001	9.67	6.73	<0.001
Hispanic residents, %	9.30	9.95	7.38	<0.001	3.66	27.4	<0.001
Female, %	49.90	49.8	50.3	<0.001	50.1	49.4	<0.001
age 65 and older, %	18.81	19.4	17.2	<0.001	19.3	17.1	<0.001
CMS HCC score	0.96	0.93	1.03	<0.001	0.95	0.96	0.09
Residents per square mile	227	117	553	<0.001	131	536	<0.001
Essential workers, %	19.64	20.7	16.6	<0.001	19.8	19.3	0.10
Workers traveling to work by public transportation, %	0.91	0.70	1.55	<0.001	0.60	1.92	<0.001
Household units with more than 1 person per room, %	2.41	2.39	2.45	0.36	1.98	3.79	<0.001
poverty, % families living below poverty	11.61	10.4	15.1	<0.001	11.6	11.72	0.51
Uninsured age less than 65,%	11.48	11.0	12.81	<0.001	10.3	15.1	<0.001
Primary care doctors per 10,000 residents	5.19	5.21	5.12	0.53	5.13	5.38	0.09
Hospital beds per 100,000 residents	264	264	265	0.96	272	237	0.023
ICU beds per 100,000 residents	9.12	7.96	12.6	0.005	9.01	9.48	0.56
Nursing home/skilledICU beds per 100,000 residents nursing facility beds per 100,000 residents	843	870	762	<0.001	884	709	<0.001
deaths per 100,000	65.01	53	101	<0.001	63	71	0.007

The 2-sample t-test, assuming unequal variances, was used to test for differences in the distribution of county characteristics.

Supplementary Digital Content, Table 3

Risk of COVID-19 Death as a function of county percentage of non-Hispanic black and Hispanic residents

Counties, N	April	May	June	July	August	Sept	Oct	Nov	
Non-Hispanic blacks, %									
0-2%	1,521	ref	ref	ref	ref	ref	ref	ref	
2.1-4%	363	1.21 [0.93,1.57]	1.31 [0.93,1.85]	1.28* [1.03,1.60]	1.2 [0.96,1.50]	1.12 [0.98,1.28]	1.21** [1.05,1.39]	1.08 [0.94,1.25]	0.82* [0.70,0.97]
4.1-10%	454	1.13 [0.88,1.46]	1.44** [1.11,1.86]	1.50** [1.16,1.94]	1.44*** [1.17,1.76]	1.35*** [1.16,1.57]	1.41*** [1.18,1.67]	1.18* [1.03,1.35]	0.84* [0.73,0.97]
10.1-20%	297	1.79*** [1.28,2.49]	2.12*** [1.50,3.01]	2.13*** [1.48,3.06]	1.91*** [1.49,2.46]	1.83*** [1.39,2.41]	1.55*** [1.23,1.94]	1.26** [1.06,1.50]	0.83* [0.71,0.98]
20.1-40%	312	2.46*** [1.54,3.93]	3.95*** [2.52,6.17]	2.79*** [1.73,4.50]	2.59*** [1.80,3.71]	2.52*** [1.78,3.56]	2.11*** [1.54,2.88]	1.43** [1.15,1.77]	0.79* [0.65,0.97]
40.1- %	179	4.22*** [2.54,7.00]	5.42*** [3.28,8.97]	4.86*** [3.08,7.67]	3.89*** [2.71,5.58]	3.20*** [2.02,5.06]	2.21*** [1.54,3.16]	1.47 [1.00,2.16]	0.63*** [0.48,0.83]
Hispanics, %									
0-2%	659	ref	ref	ref	ref	ref	ref	ref	
2.1-4%	878	1.05 [0.76,1.44]	0.85 [0.66,1.09]	0.96 [0.70,1.33]	1.14 [0.87,1.50]	1.21 [0.99,1.49]	1.13 [0.96,1.32]	1.22 [0.99,1.50]	1.11 [0.90,1.37]
4.1-10%	847	0.9 [0.66,1.23]	0.94 [0.71,1.25]	1.25 [0.85,1.82]	1.26 [0.86,1.85]	1.27 [0.94,1.72]	1.14 [0.93,1.41]	1.05 [0.83,1.33]	1.01 [0.83,1.24]
10.1-20%	360	0.97 [0.64,1.47]	1.28 [0.83,2.00]	1.72* [1.02,2.90]	1.51 [0.91,2.50]	1.36 [0.92,2.02]	1.13 [0.85,1.49]	0.86 [0.67,1.09]	0.84 [0.65,1.07]
20.1-40%	230	1.14 [0.59,2.21]	1.48 [0.66,3.29]	1.66 [0.83,3.33]	1.72 [0.99,2.98]	1.91** [1.23,2.96]	1.24 [0.88,1.75]	0.77 [0.57,1.04]	0.74* [0.57,0.95]
40.1- %	152	0.66 [0.33,1.29]	1.15 [0.54,2.45]	1.12 [0.50,2.47]	2.10* [1.17,3.76]	3.14*** [1.69,5.82]	1.89** [1.17,3.05]	1.19 [0.78,1.82]	0.83 [0.56,1.23]
Male, %									
0-48%	207	ref	ref	ref	ref	ref	ref	ref	
48.1-50%	1724	1.04 [0.71,1.52]	0.88 [0.73,1.06]	0.70** [0.55,0.89]	0.95 [0.74,1.22]	1.03 [0.87,1.23]	0.96 [0.79,1.17]	1.02 [0.83,1.25]	1.05 [0.91,1.21]
50.1-52%	861	0.92 [0.66,1.29]	0.79 [0.59,1.05]	0.65*** [0.51,0.82]	0.78* [0.61,0.98]	0.93 [0.74,1.17]	0.83 [0.65,1.05]	0.95 [0.78,1.16]	1.28** [1.08,1.51]
52.1- %	334	0.8 [0.50,1.28]	0.61** [0.44,0.85]	0.42*** [0.27,0.66]	0.57** [0.40,0.80]	0.9 [0.72,1.12]	0.88 [0.65,1.18]	1.19 [0.89,1.58]	1.45*** [1.18,1.77]
Age 65 and older, %									
0-15%	590	ref	ref	ref	ref	ref	ref	ref	
15.1-20 %	1433	1.2 [0.94,1.53]	1.2 [0.97,1.48]	1.04 [0.87,1.24]	1.18 [0.96,1.45]	1.12 [0.95,1.33]	1.07 [0.93,1.22]	1.04 [0.91,1.19]	0.9 [0.78,1.04]
20.1-25%	810	0.99 [0.69,1.43]	0.91 [0.63,1.32]	0.87 [0.63,1.21]	1 [0.77,1.31]	1.27* [1.00,1.61]	1.11 [0.90,1.37]	1.13 [0.95,1.35]	0.92 [0.76,1.11]
25.1-30%	234	1.13 [0.68,1.88]	1 [0.65,1.53]	0.99 [0.66,1.48]	1.12 [0.81,1.54]	1.31 [0.92,1.86]	1.38* [1.01,1.88]	1.41 [0.98,2.02]	1.11 [0.87,1.40]
30.1- %	59	1.48 [0.63,3.48]	0.87 [0.45,1.69]	0.96 [0.54,1.72]	1.34 [0.80,2.25]	1.80** [1.26,2.58]	1.58** [1.13,2.22]	2.02*** [1.49,2.75]	1.45 [1.00,2.11]
CMS-HCC risk score									
0-0.8	205	ref	ref	ref	ref	ref	ref	ref	
0.81-0.9	691	0.62 [0.32,1.22]	1.21 [0.47,3.17]	3.20*** [1.63,6.28]	2.41*** [1.54,3.75]	1.39 [0.83,2.31]	1.52 [0.97,2.38]	1.56* [1.04,2.33]	1.41* [1.08,1.85]
0.91-1	1316	0.87 [0.43,1.78]	2.08 [0.73,5.92]	4.56*** [2.26,9.19]	3.03*** [1.89,4.86]	1.78* [1.12,2.84]	1.92** [1.18,3.13]	1.92* [1.17,3.15]	1.72*** [1.26,2.34]
1.01-1.1	743	1.09 [0.52,2.29]	2.27 [0.78,6.62]	4.91*** [2.37,10.18]	3.38*** [1.99,5.74]	1.90* [1.16,3.10]	2.28** [1.37,3.78]	2.15** [1.28,3.62]	1.87*** [1.35,2.59]
1.11-	171	1.71 [0.72,4.05]	2.82 [0.87,9.18]	5.62*** [2.37,13.34]	3.29*** [1.70,6.37]	2.05* [1.14,3.68]	2.71** [1.48,4.98]	2.65*** [1.49,4.69]	1.81** [1.25,2.64]
Urban-Rural Classification									
large central metro	67	ref	ref	ref	ref	ref	ref	ref	
large fringe metro	365	1.48 [0.96,2.26]	1.51* [1.06,2.16]	1.48* [1.09,2.01]	1.3 [0.90,1.87]	1.26* [1.01,1.57]	1.13 [0.91,1.41]	0.99 [0.79,1.24]	1.06 [0.84,1.33]
medium metro	369	1.1 [0.67,1.80]	1.12 [0.78,1.97]	1.12 [0.79,1.59]	1.11 [0.76,1.62]	1.37* [1.05,1.80]	1.2 [0.95,1.51]	1.08 [0.83,1.39]	1.08 [0.80,1.45]
small metro	357	1.05 [0.65,1.69]	1.6 [0.98,2.61]	1.49* [1.02,2.17]	1.11 [0.75,1.66]	1.24 [0.92,1.68]	1.24 [0.99,1.54]	1.13 [0.90,1.43]	1.28 [0.93,1.75]
micropolitan	640	0.9 [0.60,1.35]	1.27 [0.82,1.96]	1.27 [0.87,1.85]	0.92 [0.63,1.36]	1.15 [0.86,1.54]	1.33* [1.04,1.71]	1.14 [0.89,1.46]	1.21 [0.89,1.66]
noncore	1328	0.81 [0.55,1.19]	1.4 [0.88,2.21]	1.32 [0.85,2.03]	1.36 [0.90,2.04]	1.22 [0.88,1.68]	1.31* [1.03,1.68]	1.03 [0.78,1.38]	1.2 [0.86,1.68]
Essential workers, %									
0-15%	680	ref	ref	ref	ref	ref	ref	ref	
15.1-20%	1236	1.26 [0.98,1.62]	1.17 [0.94,1.46]	1.16 [0.95,1.42]	0.94 [0.78,1.13]	0.9 [0.76,1.07]	1.01 [0.86,1.20]	1.08 [0.91,1.28]	1.30*** [1.16,1.46]
20.1-25%	687	1.35 [1.00,1.82]	1.07 [0.81,1.41]	1.25 [0.96,1.63]	1.12 [0.84,1.48]	0.95 [0.75,1.22]	1.11 [0.90,1.38]	1.25* [1.00,1.55]	1.64*** [1.41,1.90]
25.1- %	523	1.29 [0.86,1.93]	1.01 [0.52,1.96]	1.13 [0.77,1.66]	0.96 [0.70,1.31]	1.02 [0.74,1.41]	1.12 [0.79,1.57]	1.76** [1.18,2.62]	2.56*** [1.96,3.33]
Public transportation, %									
0-0.5%	2,027	ref	ref	ref	ref	ref	ref	ref	
0.51-2.5%	899	1.23* [1.03,1.48]	1.24* [1.05,1.47]	1.46*** [1.21,1.76]	1.16* [1.01,1.33]	0.81** [0.70,0.94]	0.83** [0.75,0.93]	0.86* [0.75,0.99]	0.95 [0.85,1.07]
2.51-7.5%	143	1.77*** [1.26,2.49]	1.88** [1.28,2.77]	1.72** [1.24,2.38]	1.37 [1.00,1.87]	0.64*** [0.49,0.82]	0.56*** [0.44,0.70]	0.67*** [0.54,0.83]	0.73** [0.59,0.91]
7.51- %	57	5.79*** [2.90,11.57]	4.00*** [2.11,7.58]	2.42** [1.35,4.34]	1.31 [0.70,2.47]	0.45** [0.27,0.77]	0.48** [0.29,0.79]	0.50** [0.31,0.81]	0.60*** [0.45,0.81]
Household units with >1 person per room, %									
0-1%	578	ref	ref	ref	ref	ref	ref	ref	
1.1-2%	1101	1.03 [0.79,1.34]	ref [0.91,1.44]	0.99 [0.82,1.21]	0.97 [0.74,1.28]	0.97 [0.83,1.13]	0.93 [0.78,1.11]	0.97 [0.87,1.08]	1.09 [0.95,1.25]
2.1-3%	738	1.22 [0.85,1.74]	1.25 [0.96,1.64]	0.93 [0.69,1.24]	0.97 [0.75,1.24]	1 [0.82,1.22]	0.96 [0.79,1.16]	1.08 [0.93,1.24]	1.04 [0.89,1.21]
3.1-4%	344	1.08 [0.70,1.67]	1.11 [0.82,1.50]	0.88 [0.65,1.21]	1.07 [0.81,1.41]	1.06 [0.84,1.34]	0.89 [0.73,1.10]	1.1 [0.91,1.34]	0.98 [0.82,1.17]
4.1- %	365	1.35 [0.78,2.32]	1.52* [1.02,2.26]	1.4 [0.90,2.16]	1.63* [1.11,2.39]	1.34* [1.05,1.72]	1.23 [0.98,1.55]	1.31* [1.04,1.66]	0.96 [0.77,1.21]

Risk of COVID-19 Death as a function of county percentage of non-Hispanic black and Hispanic residents

Counties, N	April	May	June	July	August	Sept	Oct	Nov	
Household poverty, %									
0-5%	244	ref	ref	ref	ref	ref	ref	ref	
5.1-10%	1173	1.06 [0.75,1.49]	0.98 [0.71,1.37]	1.03 [0.71,1.48]	0.66* [0.46,0.93]	1 [0.78,1.28]	1.06 [0.85,1.32]	0.91 [0.70,1.20]	1.1 [0.93,1.31]
10.1-15%	1027	0.83 [0.51,1.34]	0.67 [0.44,1.01]	0.92 [0.59,1.43]	0.65* [0.43,0.99]	1.12 [0.82,1.52]	1.26 [0.92,1.73]	0.96 [0.68,1.36]	1.31* [1.04,1.65]
15.1-20%	442	0.9 [0.51,1.58]	0.65 [0.36,1.16]	1.2 [0.68,2.10]	0.81 [0.49,1.34]	1.52* [1.07,2.15]	1.38 [1.00,1.91]	1.08 [0.75,1.55]	1.57*** [1.20,2.05]
20.1- %	240	1.11 [0.62,2.00]	0.8 [0.38,1.68]	1.41 [0.71,2.81]	1.31 [0.73,2.37]	1.63* [1.11,2.39]	1.78*** [1.28,2.47]	1.13 [0.76,1.67]	1.87*** [1.36,2.58]
Uninsured age less than 65, %									
0-5%	147	ref	ref	ref	ref	ref	ref	ref	
5.1-7.5%	672	0.93 [0.54,1.61]	0.92 [0.62,1.37]	0.92 [0.64,1.31]	0.95 [0.60,1.49]	0.9 [0.67,1.20]	0.97 [0.70,1.35]	1.16 [0.83,1.61]	1.08 [0.83,1.40]
7.6-10%	624	0.94 [0.48,1.85]	0.74 [0.44,1.25]	0.78 [0.51,1.20]	1.28 [0.71,2.29]	1.23 [0.83,1.82]	1.17 [0.77,1.78]	1.16 [0.73,1.86]	1.14 [0.85,1.54]
10.1-15%	982	0.65 [0.32,1.32]	0.59 [0.32,1.08]	0.67 [0.40,1.12]	1.36 [0.76,2.44]	1.49 [0.93,2.40]	1.42 [0.89,2.27]	1.72* [1.07,2.79]	1.34 [0.98,1.83]
15.1- %	701	0.72 [0.31,1.72]	0.64 [0.33,1.26]	0.66 [0.34,1.29]	1.22 [0.65,2.30]	1.97** [1.19,3.27]	1.71* [1.06,2.78]	1.69* [1.01,2.84]	1.49* [1.04,2.14]
Primary care doctors per 10,000 residents									
0-2.5	649	ref	ref	ref	ref	ref	ref	ref	
2.6-5	1062	0.99 [0.77,1.28]	1.02 [0.85,1.24]	0.93 [0.76,1.14]	0.97 [0.80,1.18]	1.07 [0.90,1.28]	1.01 [0.85,1.21]	0.97 [0.87,1.09]	0.95 [0.79,1.15]
5.1-7.5	752	1.09 [0.76,1.55]	0.98 [0.73,1.33]	0.91 [0.74,1.12]	0.95 [0.77,1.16]	1.01 [0.84,1.22]	0.94 [0.75,1.18]	1 [0.85,1.17]	1.04 [0.86,1.27]
7.6-10	402	1.14 [0.80,1.62]	1.16 [0.82,1.64]	0.9 [0.67,1.22]	0.89 [0.68,1.15]	0.94 [0.75,1.19]	0.93 [0.74,1.16]	0.94 [0.77,1.15]	1.05 [0.85,1.30]
10.1-	261	1.08 [0.74,1.57]	1.04 [0.67,1.60]	0.82 [0.58,1.15]	0.99 [0.76,1.30]	0.91 [0.69,1.19]	0.89 [0.67,1.20]	0.92 [0.72,1.17]	1.03 [0.81,1.32]
Hospital beds per 100,000 residents									
0-50	737	ref	ref	ref	ref	ref	ref	ref	
51-150	650	1.21 [0.88,1.66]	1.14 [0.86,1.51]	1.01 [0.78,1.30]	1.32 [0.96,1.81]	1.04 [0.85,1.28]	1 [0.83,1.20]	0.95 [0.79,1.16]	0.98 [0.84,1.14]
151-300	916	1.22 [0.87,1.73]	1.16 [0.87,1.54]	1.07 [0.78,1.47]	1.36* [1.06,1.74]	1.04 [0.86,1.26]	1.04 [0.86,1.26]	0.99 [0.81,1.21]	1.04 [0.89,1.21]
301-600	538	1.01 [0.72,1.43]	0.82 [0.65,1.03]	0.82 [0.62,1.10]	1.04 [0.79,1.37]	0.91 [0.74,1.12]	1.05 [0.85,1.29]	0.99 [0.76,1.28]	0.99 [0.84,1.18]
601-	285	1.02 [0.69,1.52]	0.97 [0.64,1.47]	0.74 [0.44,1.24]	0.85 [0.53,1.37]	1.04 [0.75,1.45]	1.03 [0.85,1.26]	1 [0.78,1.28]	1.14 [0.92,1.40]
ICU beds per 100,000 residents									
0-5	1,840	ref	ref	ref	ref	ref	ref	ref	
6.0-10	232	1.17 [0.92,1.47]	1.11 [0.90,1.38]	1.11 [0.89,1.39]	1.15 [0.94,1.40]	1.11 [0.96,1.27]	0.89 [0.77,1.03]	0.95 [0.82,1.09]	0.83* [0.71,0.96]
11.0-20	537	0.98 [0.82,1.17]	1.13 [0.89,1.43]	1.17 [0.93,1.46]	1.20* [1.02,1.41]	1.15 [0.99,1.34]	1.01 [0.89,1.16]	0.93 [0.79,1.09]	0.91 [0.80,1.02]
21-30	290	1.13 [0.86,1.47]	1.11 [0.83,1.49]	1.07 [0.84,1.37]	1.08 [0.86,1.35]	1.12 [0.93,1.35]	0.97 [0.87,1.08]	0.94 [0.76,1.15]	1 [0.84,1.18]
31-	227	0.91 [0.69,1.20]	0.93 [0.65,1.33]	0.81 [0.59,1.10]	1.23 [0.97,1.56]	1.26 [0.98,1.63]	1.04 [0.87,1.25]	1.02 [0.83,1.26]	0.95 [0.80,1.13]
Nursing home/NSF beds per 100,000 residents									
0-200	338	ref	ref	ref	ref	ref	ref	ref	
201-400	380	0.82 [0.54,1.24]	1.07 [0.70,1.64]	0.92 [0.60,1.42]	0.88 [0.69,1.14]	0.93 [0.71,1.22]	1.22 [1.00,1.50]	1.1 [0.84,1.43]	1.15 [0.91,1.44]
401-800	1050	1 [0.62,1.62]	1.54 [0.96,2.49]	1.37 [0.80,2.34]	1.04 [0.76,1.43]	0.87 [0.65,1.16]	1.22 [0.98,1.51]	1.22 [0.92,1.63]	1.33* [1.06,1.66]
801-1200	715	1.05 [0.64,1.74]	2.04* [1.16,3.60]	2.01* [1.08,3.72]	1.28 [0.90,1.84]	1.02 [0.74,1.42]	1.34* [1.06,1.70]	1.44* [1.05,1.97]	1.53*** [1.23,1.89]
1201-1600	304	1.17 [0.64,2.12]	1.79 [0.92,3.50]	2.11* [1.11,3.99]	0.97 [0.58,1.63]	0.98 [0.68,1.41]	1.50** [1.15,1.96]	1.86*** [1.36,2.55]	1.77*** [1.36,2.29]
1601-	339	1.13 [0.54,2.37]	1.51 [0.73,3.11]	2.25** [1.25,4.07]	1.24 [0.80,1.93]	1.06 [0.69,1.62]	1.73*** [1.26,2.39]	2.17*** [1.52,3.08]	2.20*** [1.76,2.75]

* p<0.05, ** p<0.01, *** p<0.001

abbreviations: IRR – incident rate ratio; CI – confidence interval, ref – reference, Sept – September; Oct – October; Nov - November