

COVID Tabulations: Death Rate Variation by Age and Gender, Summary of State and County Data on New Cases, and Top 25 County Hot Spots

5 Slide Series, 84-c

May 15, 2020

The Menges Group

Strategic Health Policy & Care Coordination Consulting

Introduction and Overview

- This edition quantifies the distribution of COVID-attributed deaths among older age groups as well as the gender distribution of deaths within each age group.
- The 5 counties with the highest number of COVID cases per 100,000 are a result of outbreaks in local prisons, jails, or meat processing plants.
- We have also tabulated the rate of new cases at county and state levels during this past week (May 6 - 13) as compared to the previous week (April 29 – May 6).
 - Despite social distancing measures, COVID-19 cases continue to spread. Nationally, there were 165,665 new confirmed cases during the week of May 6 – May 13. This week marked the country's 6th highest week in terms of new cases thus far into the pandemic. This week's volume was 13% *below* the previous week, and 23% *below* the peak.

Tabulation of COVID Deaths by Gender and Age Group

- Deaths are skewed towards older populations. Individuals 85 or older account for only 2% of the total US population, but 31.9% of all COVID deaths have occurred within this age group.
- 80.1% of all COVID deaths have occurred in persons aged 65 and older, though this age group represents only 16% of the total US population.
- Males have died at a far higher per capita rate (roughly double) than females in nearly every cohort.

Age Cohort	COVID Deaths Through Approximately April 29			COVID Deaths per 100,000 Persons as of April 29			Male Per Capita Death Rate as % of Female Rate	Age Cohort's Share Of:	
	Female	Male	Total	Female	Male	Total		US Population	COVID Deaths
0 - 19	25	46	71	0.1	0.1	0.1	176%	25.1%	0.1%
20 - 44	381	980	1,361	0.7	1.8	1.3	252%	33.3%	2.5%
45 - 55	802	1,970	2,772	3.8	9.6	6.7	252%	12.7%	5.1%
55 - 65	2,235	4,490	6,725	10.2	22.0	15.9	215%	12.9%	12.3%
65 - 75	4,265	7,259	11,524	26.3	51.0	37.8	194%	9.3%	21.0%
75 - 85	6,561	8,369	14,930	75.8	124.4	97.0	164%	4.7%	27.2%
85 +	10,204	7,273	17,477	241.8	312.1	266.8	129%	2.0%	31.9%
TOTAL	24,473	30,387	54,860	14.7	18.9	16.8	128%	100.0%	100.0%

The data source used for tabulating COVID deaths by age and gender is the National Center for Health Statistics: <https://data.cdc.gov/NCHS/ProvisionalCOVID-19-Death-Counts-bySex-Age-and-S/9bhg-hcku>. Data were downloaded on May 14, at which point over 54,000 COVID deaths were included in these data files. As of May 14, however, there were over 84,000 COVID-attributed deaths. The delay in the data capture means that the death rates in this table are far understated as of May 14 – more current COVID death data are provided on ensuing slides. The wide differences in the COVID death rates across the age cohorts and between genders are the key data points we are quantifying in this table.

Distribution of US Counties by New Confirmed Cases April 29 – May 6 versus May 6 - 13

- 60.4% of the US population lives in a county that reported the same or fewer new cases during this past week (May 6-13) than the previous week.
 - These 1,796 counties have reported 75.5% of all cumulative cases and 77.1% of all COVID-attributed deaths since the beginning of the outbreak in the United States.
- New cases increased this past week (relative to the prior week) in 1,128 counties representing 39.2% of the US population.
- The number of counties with no confirmed cases continues to fall, with this group accounting for 0.4% of the entire US population.

	Counties with No Confirmed Cases Through May 13	Counties with More New Cases April 29 - May 6 than May 6 - 13	Counties with More New Cases May 6 - 13 than April 29 - May 6	Counties with the Same Number of New Cases April 29 - May 6 and May 6 - 13
Number of Counties	276	1,234	1,128	562
% of All Counties	8.6%	38.6%	35.3%	17.6%
% Total US Population	0.4%	56.7%	39.2%	3.7%
% Cumulative Cases as of May 13	0.0%	74.8%	24.5%	0.7%
% Cumulative Deaths as of May 13	0.0%	76.6%	22.9%	0.5%

Top 25 County “Hot-Spots” in Terms of Cases Per 100,000 Population, as of May 13

- Cases continue to rise in the top 25 counties due to outbreaks in prisons, jails, and meat packing plants.
 - 3 of the top 5 counties, including Trousdale and Lake in Tennessee, and Lincoln County in Arkansas, experienced outbreaks in local prisons.
 - Dakota County in Nebraska and Nobles County in Minnesota joined the top five counties as a result of outbreaks in meat packing plants in the counties.
- 9 of the 25 counties, all of which are in New Jersey and New York, have populations well over 100,000 persons.
- These 25 counties represent only 2.7% of the entire US population but are home to 18.5% of all cases and 21.3% of deaths as of May 13.

Rank	State	County	Population	Confirmed Cases per 100,000 Population, as of May 13	New Confirmed Cases from April 29 - May 6	New Confirmed Cases from May 6 - May 13	Percent Change in New Confirmed Cases, April 29 - May 6 versus May 6-13	Cumulative Deaths through May 13	Percentage Increase in Deaths as of May 13 versus May 6
1	Tennessee	Trousdale	11,284	12,239	1,233	26	-98%	3	50%
2	Nebraska	Dakota	20,026	7,256	385	439	14%	7	133%
3	Arkansas	Lincoln	13,024	7,233	69	59	-14%	7	17%
4	Minnesota	Nobles	21,629	5,969	467	209	-55%	2	0%
5	Tennessee	Lake	7,016	4,276	6	241	3,917%	-	0%
6	Nebraska	Colfax	10,709	4,165	248	154	-38%	1	0%
7	Indiana	Cass	37,689	4,102	317	102	-68%	5	67%
8	Tennessee	Bledsoe	15,064	4,003	9	2	-78%	1	0%
9	New York	Rockland	325,789	3,850	618	339	-45%	429	7%
10	Ohio	Marion	65,093	3,716	151	72	-52%	15	15%
11	Kansas	Ford	33,619	3,668	279	353	27%	2	0%
12	Kansas	Seward	21,428	3,416	166	106	-36%	-	0%
13	Ohio	Pickaway	58,457	3,349	114	122	7%	25	14%
14	New York	Westchester	967,506	3,267	1,801	1,184	-34%	1,368	6%
15	Nebraska	Dawson	23,595	3,191	252	77	-69%	3	0%
16	New York	Bronx	1,418,207	2,977	2,909	2,344	-19%	4,172	-10%
17	New Jersey	Passaic	501,826	2,941	1,786	786	-56%	785	14%
18	New York	Nassau	1,356,924	2,844	1,845	1,237	-33%	2,468	6%
19	Kansas	Finney	36,467	2,827	360	401	11%	4	33%
20	Nebraska	Saline	14,224	2,756	178	107	-40%	-	0%
21	New York	Richmond	476,143	2,686	628	411	-35%	900	9%
22	Iowa	Louisa	11,035	2,619	10	10	0%	3	50%
23	New Jersey	Union	556,341	2,571	1,224	702	-43%	908	14%
24	New York	Queens	2,253,858	2,549	3,817	3,338	-13%	5,796	6%
25	New Jersey	Hudson	672,391	2,533	1,601	838	-48%	1,007	12%

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State Table 1 of 3: Alabama through Maine

State	Cumulative Confirmed Cases, as of May 13	Cumulative Confirmed Cases per 100,000 Population, as of May 13	State Rank, Confirmed Cases per Capita, as of May 13	New Confirmed Cases, April 29 - May 6	New Confirmed Cases May 6 - 13	Percent Change in New Confirmed Cases, April 29 - May 6 versus May 6 - 13	Cumulative COVID-19 Deaths, as of May 13	COVID-19 Deaths per 100,000 Population, as of May 13	State Rank, COVID-19 Deaths per capita, as of May 13	Deaths as a Percentage of Confirmed Cases, as of May 13
Alabama	10,700	218.2	28	1,766	2,009	14%	450	9.2	25	4.2%
Alaska	383	52.4	49	17	13	-24%	8	1.1	51	2.1%
Arizona	12,176	167.3	35	2,505	2,469	-1%	594	8.2	29	4.9%
Arkansas	4,236	140.4	42	404	625	55%	97	3.2	45	2.3%
California	73,218	185.3	34	11,883	12,431	5%	3,014	7.6	30	4.1%
Colorado	20,442	355.0	17	3,040	2,722	-10%	1,062	18.4	14	5.2%
Connecticut	34,855	977.6	5	4,228	3,860	-9%	3,125	87.7	3	9.0%
Delaware	6,952	713.9	7	1,123	1,174	5%	247	25.4	12	3.6%
District of Columbia	6,584	932.9	6	1,355	1,123	-17%	350	49.6	6	5.3%
Florida	42,394	197.4	32	4,809	4,400	-9%	1,826	8.5	26	4.3%
Georgia	33,866	319.0	19	5,424	4,142	-24%	1,494	14.1	16	4.4%
Hawaii	627	44.3	50	11	11	0%	17	1.2	50	2.7%
Idaho	2,325	130.1	43	174	167	-4%	69	3.9	43	3.0%
Illinois	84,874	669.8	9	17,809	16,710	-6%	3,815	30.1	10	4.5%
Indiana	26,044	386.9	16	4,877	3,758	-23%	1,619	24.0	13	6.2%
Iowa	13,289	421.2	15	3,561	2,885	-19%	306	9.7	24	2.3%
Kansas	7,552	259.2	21	2,082	1,659	-20%	179	6.1	35	2.4%
Kentucky	7,102	159.0	36	1,408	1,156	-18%	334	7.5	31	4.7%
Louisiana	32,662	702.6	8	2,739	2,263	-17%	2,315	49.8	5	7.1%
Maine	1,515	112.7	46	198	261	32%	66	4.9	39	4.4%

Yellow highlighting denotes the ten states with the highest per capita rates of cases and deaths.



State Table 2 of 3: Maryland through Rhode Island

State	Cumulative Confirmed Cases, as of May 13	Cumulative Confirmed Cases per 100,000 Population, as of May 13	State Rank, Confirmed Cases per Capita, as of May 13	New Confirmed Cases, April 29 - May 6	New Confirmed Cases May 6 - 13	Percent Change in New Confirmed Cases, April 29 - May 6 versus May 6 - 13	Cumulative COVID-19 Deaths, as of May 13	COVID-19 Deaths per 100,000 Population, as of May 13	State Rank, COVID-19 Deaths per capita, as of May 13	Deaths as a Percentage of Confirmed Cases, as of May 13
Maryland	34,927	577.7	10	7,321	6,664	-9%	1,809	29.9	11	5.2%
Massachusetts	80,497	1,167.9	3	11,760	8,472	-28%	5,315	77.1	4	6.6%
Michigan	48,307	483.7	12	4,687	3,259	-30%	4,714	47.2	7	9.8%
Minnesota	12,917	229.0	26	3,935	4,338	10%	638	11.3	19	4.9%
Mississippi	10,090	339.0	18	1,855	1,666	-10%	465	15.6	15	4.6%
Missouri	10,369	156.4	37	1,738	1,205	-31%	550	8.3	28	5.3%
Montana	462	43.2	51	5	6	20%	16	1.5	48	3.5%
Nebraska	9,075	469.1	13	2,895	2,304	-20%	107	5.5	37	1.2%
Nevada	6,491	210.7	30	840	717	-15%	331	10.7	23	5.1%
New Hampshire	3,299	242.6	24	687	558	-19%	150	11.0	20	4.5%
New Jersey	141,560	1,593.8	2	15,626	9,670	-38%	9,702	109.2	2	6.9%
New Mexico	5,364	255.8	22	1,077	1,074	0%	231	11.0	21	4.3%
New York	339,727	1,746.3	1	23,262	19,383	-17%	27,402	140.9	1	8.1%
North Carolina	15,850	151.1	40	2,836	3,067	8%	615	5.9	36	3.9%
North Dakota	1,647	216.1	29	290	324	12%	40	5.2	38	2.4%
Ohio	25,727	220.1	27	4,273	4,151	-3%	1,483	12.7	18	5.8%
Oklahoma	4,852	122.6	44	728	651	-11%	278	7.0	34	5.7%
Oregon	3,468	82.2	47	470	552	17%	134	3.2	46	3.9%
Pennsylvania	62,194	485.8	11	8,798	7,205	-18%	4,104	32.1	9	6.6%
Rhode Island	11,835	1,117.2	4	1,958	1,630	-17%	462	43.6	8	3.9%

Yellow highlighting denotes the ten states with the highest per capita rates of cases and deaths.



State Table 3 of 3: South Carolina through Wyoming (including US Territories and Totals)

State	Cumulative Confirmed Cases, as of May 13	Cumulative Confirmed Cases per 100,000 Population, as of May 13	State Rank, Confirmed Cases per Capita, as of May 13	New Confirmed Cases, April 29 - May 6	New Confirmed Cases May 6 - 13	Percent Change in New Confirmed Cases, April 29 - May 6 versus May 6 - 13	Cumulative COVID-19 Deaths, as of May 13	COVID-19 Deaths per 100,000 Population, as of May 13	State Rank, COVID-19 Deaths per capita, as of May 13	Deaths as a Percentage of Confirmed Cases, as of May 13
South Carolina	8,030	156.0	38	1,055	1,094	4%	362	7.0	33	4.5%
South Dakota	3,732	421.9	14	404	953	136%	39	4.4	40	1.0%
Tennessee	16,261	238.1	25	3,482	2,524	-28%	271	4.0	42	1.7%
Texas	43,822	151.1	39	7,602	8,381	10%	1,205	4.2	41	2.7%
Utah	6,624	206.6	31	1,106	1,019	-8%	76	2.4	47	1.1%
Vermont	929	148.9	41	46	21	-54%	53	8.5	27	5.7%
Virginia	26,746	313.3	20	5,295	6,490	23%	927	10.9	22	3.5%
Washington	18,604	244.3	23	2,335	1,891	-19%	977	12.8	17	5.3%
West Virginia	1,405	78.4	48	167	128	-23%	59	3.3	44	4.2%
Wisconsin	10,903	187.3	33	2,381	2,002	-16%	421	7.2	32	3.9%
Wyoming	688	118.9	45	87	57	-34%	7	1.2	49	1.0%
50 states + DC	1,388,198	422.3		188,414	165,294	-12.3%	83,930	25.5		6.0%
Territories										
American Samoa	-	-		-	-	-	-	-		-
Guam	1,121	665.6		4	3	-25%	6	3.6		0.5%
Northern Mariana Islands	19	33.0		1	4	300%	2	3.5		10.5%
Puerto Rico	2,329	76.8		503	361	-28%	115	3.8		4.9%
Virgin Islands	69	66.0		-	3	-	6	5.7		8.7%
Territories Subtotal	3,538	103.5		508	371	-27%	129	16.6		
United States and Territories	1,391,736	419.0		188,922	165,665	-12%	84,059	25.3		6.0%

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State-Level Findings

- The number of new cases per day continues to fall (21,198 new confirmed cases on May 13) as compared to the peak on April 24 (27,137 new confirmed cases). However, the influx of new cases is still extremely high. Nationwide, new cases per day were 12% lower this week than during the previous week.
- The number of new cases was *higher* this week than the previous week in 14 states. These states are home to 35% of the total US population. The 5 states with the sharpest **increase** in confirmed cases per day this past week are South Dakota (136% increase), Arkansas (55%), Maine (32%), Virginia (23%), and Montana (20%).
- The 5 states with the sharpest **decrease** in confirmed cases during this past week were Vermont (54% decrease), New Jersey (38%), Wyoming (35%), Missouri (31%), and Michigan (30%).

5 Slide Series Overview

Our 5 Slide Series is a monthly publication whereby we briefly discuss/address a selected topic outside the confines of our client engagements. The Menges Group has a variety of datasets that we use to support our 5 Slide Series and client projects.

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