

Detailed Comparisons Between First and Second 6 Months of the COVID Pandemic

5 Slide Series, Volume 93-a

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The Menges Group

Strategic Health Policy & Care Coordination Consulting

Introduction and Overview

- This edition of our 5 Slide Series tabulates COVID cases and deaths over the course of the pandemic in several ways.
 - January 2021 was the second highest month in terms of new cases (6,137,430), down only 3% from December 2020 (6,359,897).
 - January 2021 also represents the largest incidence of new deaths (94,846) that occurred within a single month, a 22% increase from December 2020 (77,507).
- We examined the COVID death rate internationally. Among the 69 countries with populations larger than 15 million, the USA had the *third-highest* rate of COVID deaths per 100,000 population overall, and the second-highest during January.

Introduction and Overview (continued)

- This edition builds upon last week's analyses of the first 6 months of the COVID pandemic as compared to the second 6 months. We examined cases and deaths by race, age, gender, nursing home residency status, and deaths by overall political categorization of the state's population.
 - Deaths in the Latinx, Unknown/Other, and White populations at least doubled during the second 6 months of the pandemic. The disproportionately high rate of deaths occurring among the Black population during the first 6 months did not continue to occur during the pandemic's second 6 months.
 - During the second 6 months of the pandemic, individuals aged 65 and older accounted for 82.6% of all COVID-attributed deaths in the US, versus 79.1% during the first 6 months.
 - COVID accounted for 29% of all deaths among nursing home residents in the US during the first 6 months of the pandemic and 31.4% during the second 6 months.
 - Death rates in the second 6 months of the pandemic, relative to the first 6 months, increased 2% across states won by President Joe Biden, 165% across states won by either candidate by less than 5 percentage points, and 328% across states won by Donald Trump.
- 7.2 million new COVID vaccines were administered in the US last week (January 28 – February 3), unfortunately representing a 19.6% *decrease* from the prior week (January 21 – 27). Nearly 8% of the US population has now received at least the first dose of the vaccine.

Monthly COVID Cases and Deaths in the US Over the Course of the Pandemic

Month	Total New Cases	Rank in Cases	Percent Change versus Prior Month	Total New Deaths	Rank in Deaths	Percent change versus Prior Month
January, 2020	7	13	N/A	-	13	N/A
February, 2020	63	12	800%	1	12	N/A
March, 2020	186,234	11	295,510%	3,899	11	389,800%
April, 2020	878,443	8	372%	58,122	3	1,391%
May, 2020	722,005	10	-18%	42,539	4	-27%
June, 2020	849,832	9	18%	23,239	9	-45%
July, 2020	1,908,055	5	125%	26,323	7	13%
August, 2020	1,453,957	6	-24%	29,686	6	13%
September, 2020	1,198,354	7	-18%	23,102	10	-22%
October, 2020	1,923,798	4	61%	23,466	8	2%
November, 2020	4,370,485	3	127%	37,170	5	58%
December, 2020	6,359,897	1	46%	77,507	2	109%
January, 2021	6,137,430	2	-3%	94,846	1	22%

- The US saw the highest number of new COVID-attributed deaths in January as nearly 95,000 people died – a 22% increase over December.
- Cases remained relatively constant in January versus December, but January had still the second highest incidence of new cases.
 - The incidence of new cases has not slowed as each of the last four months are ranked in the top 5 for new cases.

Among Larger Countries, the USA's COVID Death Rate is now World's 3rd Highest

Country	COVID Deaths per 100,000 Population Through October 20, 2020	COVID Deaths Per 100,000 Population Through January 5, 2021	COVID Deaths Per 100,000 Population Through February 1, 2021	Rank, COVID Death Rate as of February 1, 2021
United Kingdom	73	114	161	1
Italy	61	126	147	2
USA	68	109	136	3
Peru	106	118	128	4
Spain	73	110	127	5
Mexico	69	102	126	6
France	51	99	114	7
Colombia	59	89	109	8
Argentina	61	98	108	9
Brazil	74	94	107	10
Chile	73	90	99	11
Poland	10	78	98	12
Romania	31	83	95	13
Ecuador	73	83	87	14
Netherlands	40	69	82	15

- We tabulated international data focusing on the 69 countries with a population of at least 15 million persons.
- The 30 countries with the highest death rates are shown in the table (with countries ranked 16-30 on the next slide).
- The USA has a more geographically dispersed population (fewer persons per square mile) than all but eight of these 30 countries.

Among Larger Countries, the USA's COVID Death Rate is now World's 3rd Highest

Country	COVID Deaths per 100,000 Population Through October 20, 2020	COVID Deaths Per 100,000 Population Through January 5, 2021	COVID Deaths Per 100,000 Population Through February 1, 2021	Rank, COVID Death Rate as of February 1, 2021
South Africa	32	53	77	16
Iran	38	68	71	17
Germany	12	44	70	18
Canada	27	44	54	19
Ukraine	13	45	54	20
Russia	17	41	50	21
Iraq	27	33	34	22
Guatemala	21	28	33	23
Turkey	11	27	32	24
Morocco	8	21	23	25
Saudi Arabia	15	19	19	26
Kazakhstan	10	15	17	27
Congo (Kinshasa)	0	0	13	28
India	9	11	11	29
Indonesia	5	9	11	30

- Among the 69 countries with a population of at least 15 million, the USA had the third-highest rate of COVID deaths per 100,000 population.
- During January, the USA's death rate was 2nd highest among these 69 large countries, trailing only the United Kingdom.

COVID Deaths by Race

COVID Deaths by Race as a Percent of All New COVID Deaths		
Race	First 6 Months	Second 6 Months
Asian	4.1%	3.0%
Black	22.5%	11.9%
Latinx	17.1%	16.9%
Other/Multiracial	4.6%	5.0%
White	51.7%	63.2%
Total	100.0%	100.0%

COVID Deaths per 100,000 Population by Race		
Race	First 6 Months	Second 6 Months
Asian	28.0	42.1
Black	77.8	82.4
Latinx	39.3	78.2
Other/Multiracial	63.5	139.3
White	35.7	87.8
Total	41.8	84.2

- The White population accounted for a higher proportion of COVID-attributed deaths during the second 6 months of the pandemic as compared to the first.
 - Most notably, the proportion of deaths attributed to the Black population dropped from 22.5% during the first 6 months to 11.9% during the second 6 months.
- Deaths in the Latinx, Unknown/Other, and White populations at least doubled during the second 6 months of the pandemic.
- The Unknown/Other grouping includes AIAN, NHPI, Multiracial, and Other races. Unknown race figures were reallocated to other groups based on each group's relative share of COVID deaths in a given month where race was reported.

Source: <https://covidtracking.com/race/about#download-the-data>

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COVID Cases and Deaths by Age Cohort and Gender

Age Group	Share of USA Population	Age Cohort's Share of COVID Deaths within First 6 Months	Female Share of COVID Deaths Within Age Cohort, First 6 Months	Male Share of COVID Deaths Within Age Cohort, First 6 Months	Age Cohort's Share of COVID Deaths within Second 6 Months	Female Share of COVID Deaths Within Age Cohort, Second 6 Months	Male Share of COVID Deaths Within Age Cohort, Second 6 Months
85+	2%	31.7%	60.7%	39.3%	32.6%	56.6%	43.4%
75 - 84	4%	26.2%	45.2%	54.8%	28.7%	43.2%	56.8%
65 - 74	9%	21.2%	38.1%	61.9%	21.3%	39.1%	60.9%
55 - 64	13%	12.6%	34.4%	65.6%	11.1%	37.1%	62.9%
45 - 54	13%	5.3%	31.0%	69.0%	4.2%	34.7%	65.3%
0 - 44	59%	3.1%	31.4%	68.6%	2.1%	37.8%	62.2%
Total	100%	100.0%	46.1%	53.9%	100.0%	45.6%	54.4%

- Individuals aged 65 and older accounted for 79.1% of all COVID deaths during the first 6 months of the pandemic. This proportion rose to 82.6% during the second 6 months of the pandemic.
- Males have died from COVID at a higher rate than females throughout the duration of the pandemic. Males have accounted for more than 60% of COVID deaths in every age cohort (in every age cohort below age 75) where the overall population is fairly evenly divided by gender.
- These data come from the CDC's provisional death count. Due to a lag in reporting and age classification of deaths, this data set is not all inclusive of deaths that have occurred in the US. As of download (2/3/2021), there were 359,361 deaths included in this data set.

Source: <https://data.cdc.gov/NCHS/Provisional-COVID-19-Death-Counts-by-Sex-Age-and-S/gbhg-hcku>

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COVID Deaths Among Nursing Home Residents

Timeframe	COVID Deaths, Nursing Home Residents	All Deaths, Nursing Home Residents	COVID Deaths as a Percentage of All Nursing Home Deaths	New COVID Deaths, USA Total	Nursing Home COVID Deaths as a Percentage of All COVID Deaths
First 6 Months	41,669	143,697	29.0%	147,013	28.3%
Second 6 Months	70,714	224,941	31.4%	248,553	28.5%

- During the first 6 months of the pandemic, COVID accounted for 29% of all deaths among nursing home residents. Unfortunately, this proportion increased by 2.4 percentage points during the second half of the pandemic.
- Nursing home COVID deaths as a percentage of all US COVID deaths remained constant, accounting for 28% of all COVID deaths over the course of the pandemic to date.

Source: <https://data.cms.gov/stories/s/COVID-19-Nursing-Home-Data/bkwz-xpyg>

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COVID Death Rates By Political Categorization, Presidential Vote

	Political Categorization of State Population by Presidential and Gubernatorial Election Outcomes	Population Per Square Mile	COVID Death Rate per 100,000 Population, First 6 Months of the Pandemic	COVID Death Rate per 100,000 Population, Second 6 Months of the Pandemic	Percent Change in COVID Deaths Between First and Second Six Months	COVID Mortality Rate, First 6 Months	COVID Mortality Rate, Second 6 Months
Presidential Outcomes	States won by Joe Biden by more than 5 percentage points (n= 19 States and DC)	162	66.3	67.8	2%	5.13%	1.18%
	States won by either candidate by less than 5.0 percentage points (n=8)	151	36.2	95.7	165%	2.62%	1.51%
	States won by Donald Trump by more than 5 percentage points (n=23)	51	23.5	100.4	328%	2.03%	1.34%
Gubernatorial Outcomes	States currently with Democratic Governor (n=19 states and DC)	137	56.9	75.4	33%	4.73%	1.25%
	States currently with Republican Governor (n=27)	67	30.2	97.4	222%	2.24%	1.39%
	Total	93	44.7	85.5	91%	3.52%	1.32%

- Democratic-leaning states had the largest death rate during the pandemic’s first 6 months, with the difference between Democratic-leaning and Republican-leaning states tracking closely with these state groups’ population density differences.
- Death rates between the first and second 6 months increased far more sharply in Republican-leaning states than in Democratic-leaning states.
- Republican-leaning states had the highest death rate among the state groupings during the most recent 6 months of the pandemic, despite having much lower population density than the other state groupings.
- The percentage of confirmed cases resulting in death dropped substantially in the second 6 months of the pandemic in all state groupings. Nationally, this mortality rate decreased from 3.52% to 1.32%.
 - These decreases occurred despite there being minimal change in the share of COVID deaths attributable to nursing home residents during the second 6 months. This suggests that our health care providers were much better able to successfully treat COVID patients during the second 6 months than at the outset of the pandemic.

Trends in Vaccine Distribution for Alabama through Kansas, as of February 3, 2021

State	Total Doses Administered, as of Feb 3	Total Doses Administered Jan 21 - 27	Total Doses Administered Jan 28-Feb 3	Percent Increase in Doses Administered Jan 28- Feb 3 vs. Jan 21 - 27	People with 1+ Doses per 100,000 Population	People with 2 Doses Per 100,000 Population	Percent of Population with One or More Doses, as of Feb 3	Ranking, Percent of Population with One or More Doses, as of Feb 3
Alabama	388,339	139,793	109,346	-21.8%	6,628	1,285	6.6%	47
Alaska	125,765	37,565	19,907	-47.0%	13,407	3,763	13.4%	1
Arizona	656,040	205,262	168,891	-17.7%	7,603	1,403	7.6%	36
Arkansas	322,447	79,512	69,623	-12.4%	8,493	2,099	8.5%	14
California	3,671,316	1,214,547	924,440	-23.9%	7,706	1,554	7.7%	28
Colorado	617,125	155,268	121,419	-21.8%	8,210	2,442	8.2%	16
Connecticut	465,008	138,020	83,848	-39.2%	10,265	2,540	10.3%	4
Delaware	107,544	36,649	25,255	-31.1%	9,070	1,907	9.1%	8
District of Columbia	85,065	19,106	14,226	-25.5%	9,239	2,799	9.2%	7
Florida	2,133,168	467,276	425,917	-8.9%	8,161	1,738	8.2%	18
Georgia	975,038	367,163	210,827	-42.6%	7,659	1,327	7.7%	31
Hawaii	143,686	32,000	39,742	24.2%	8,153	1,995	8.2%	21
Idaho	132,384	33,533	29,584	-11.8%	6,001	1,353	6.0%	51
Illinois	1,108,571	283,399	285,246	0.7%	6,779	1,822	6.8%	46
Indiana	637,745	195,759	85,601	-56.3%	7,682	1,788	7.7%	30
Iowa	266,777	62,647	54,280	-13.4%	6,315	2,036	6.3%	49
Kansas	241,156	67,596	50,855	-24.8%	6,591	1,627	6.6%	48

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Trends in Vaccine Distribution for Kentucky through North Carolina, as of February 3, 2021

State	Total Doses Administered, as of Feb 3	Total Doses Administered Jan 21 - 27	Total Doses Administered Jan 28-Feb 3	Percent Increase in Doses Administered Jan 28- Feb 3 vs. Jan 21 - 27	People with 1+ Doses per 100,000 Population	People with 2 Doses Per 100,000 Population	Percent of Population with One or More Doses, as of Feb 3	Ranking, Percent of Population with One or More Doses, as of Feb 3
Kentucky	435,400	118,254	93,200	-21.2%	8,058	1,640	8.1%	23
Louisiana	488,960	111,495	113,065	1.4%	8,261	2,239	8.3%	15
Maine	145,786	39,024	30,595	-21.6%	8,177	2,552	8.2%	17
Maryland	546,409	154,060	134,203	-12.9%	7,517	1,513	7.5%	38
Massachusetts	625,477	159,842	135,145	-15.5%	7,217	1,836	7.2%	40
Michigan	1,042,268	305,809	227,852	-25.5%	8,154	2,145	8.2%	20
Minnesota	552,701	151,092	149,061	-1.3%	7,645	2,121	7.6%	34
Mississippi	250,905	78,661	49,658	-36.9%	7,488	934	7.5%	39
Missouri	482,112	138,076	99,560	-27.9%	6,051	1,741	6.1%	50
Montana	110,374	28,993	24,161	-16.7%	7,848	2,465	7.8%	27
Nebraska	188,285	43,736	38,266	-12.5%	7,152	2,527	7.2%	43
Nevada	279,471	87,809	84,529	-3.7%	7,688	1,338	7.7%	29
New Hampshire	138,271	35,033	27,820	-20.6%	7,652	2,510	7.7%	33
New Jersey	851,721	215,995	203,506	-5.8%	7,925	1,639	7.9%	25
New Mexico	284,830	81,390	60,138	-26.1%	10,446	2,996	10.4%	3
New York	2,003,170	584,014	372,666	-36.2%	8,034	1,892	8.0%	24
North Carolina	1,026,683	422,321	176,882	-58.1%	8,156	1,622	8.2%	19

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Trends in Vaccine Distribution for North Dakota through Wyoming, as of February 3, 2021

State	Total Doses Administered, as of Feb 3	Total Doses Administered Jan 21 - 27	Total Doses Administered Jan 28-Feb 3	Percent Increase in Doses Administered Jan 28- Feb 3 vs. Jan 21 - 27	People with 1+ Doses per 100,000 Population	People with 2 Doses Per 100,000 Population	Percent of Population with One or More Doses, as of Feb 3	Ranking, Percent of Population with One or More Doses, as of Feb 3
North Dakota	103,572	22,394	23,521	5.0%	9,525	3,598	9.5%	5
Ohio	1,085,391	302,388	295,522	-2.3%	7,559	1,718	7.6%	37
Oklahoma	462,440	111,569	99,187	-11.1%	9,402	2,214	9.4%	6
Oregon	454,269	123,455	113,886	-7.8%	8,565	2,163	8.6%	12
Pennsylvania	1,158,091	287,711	301,720	4.9%	7,167	1,858	7.2%	42
Rhode Island	101,474	23,521	21,336	-9.3%	7,030	2,546	7.0%	44
South Carolina	479,202	167,341	119,253	-28.7%	7,605	1,632	7.6%	35
South Dakota	110,967	29,258	19,191	-34.4%	8,933	3,602	8.9%	9
Tennessee	657,819	151,516	147,769	-2.5%	6,784	2,821	6.8%	45
Texas	2,652,896	635,259	545,891	-14.1%	7,196	1,947	7.2%	41
Utah	324,636	58,015	84,829	46.2%	7,659	1,974	7.7%	32
Vermont	74,718	18,057	15,847	-12.2%	8,871	3,083	8.9%	11
Virginia	922,940	325,035	254,539	-21.7%	8,875	1,621	8.9%	10
Washington	765,954	224,370	194,819	-13.2%	8,094	1,811	8.1%	22
West Virginia	268,065	65,983	43,461	-34.1%	10,892	4,043	10.9%	2
Wisconsin	548,172	139,425	186,255	33.6%	7,862	1,457	7.9%	26
Wyoming	60,775	14,116	17,350	22.9%	8,529	1,813	8.5%	13
U.S. Total	31,761,378	8,990,112	7,223,690	-19.6%	7,667	1,818	7.7%	

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Vaccine Findings

- Nearly 8% of the US population has received at least one dose of the COVID vaccination.
- Nationally, the US reported a 19.6% *decrease* in vaccine distribution January 28 – February 3 versus January 21 – 27. Only 7.2 million new vaccines were administered, fewer than the nearly 9 million new vaccines administered during the previous week.
- As of February 3, all states have administered one or more doses of the vaccine to at least 5% of their population. On the other side of the scale, Alaska has administered at least one dose to over 13% of the state's population.
- Only 9 states increased their rate of vaccination compared to last week's rate. Four states saw their weekly vaccination rate fall by more than 40% (Alaska, Georgia, Indiana, and North Carolina).

5 Slide Series Overview

Our 5 Slide Series is typically a monthly publication whereby we briefly discuss/address a selected topic outside the confines of our client engagements. Since March, we have produced dozens of editions tracking the COVID pandemic. The Menges Group has developed a variety of datasets that we use to support our 5 Slide Series and client projects.

To be added to our list to receive these as they are published (or to be removed), please email us at pcall@themengesgroup.com. If you have questions about the content or data sources we have available, please email us at jmenges@themengesgroup.com or call 571-312-2360.

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Happy
Groundhog
Day!