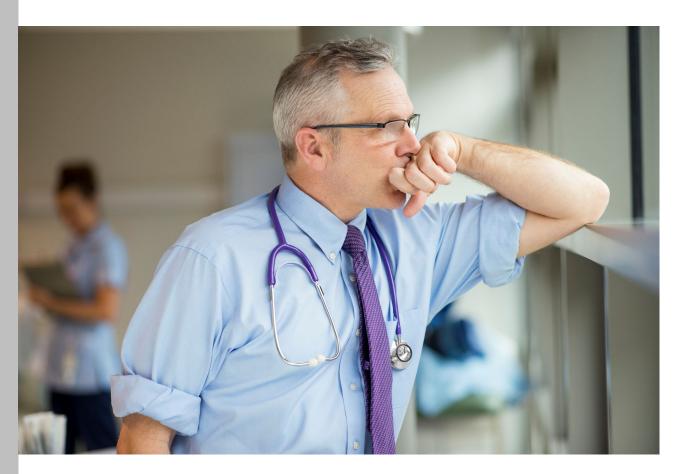# COVID-19 Information

Continuously Improving

As we enter the New Year and our 10th month into the Coronavirus Pandemic, we cannot help but reflect on how our countrywomen have been greatly taxed this year. Unfortunately, COVID-19 has taken over 413,000 lives domestically and 2.1M internationally. Johns Hopkins Coronavirus Resource Center, https://coronavirus.jhu.edu/ (Jan. 22, 2021). Experts project that many more lives will be lost this year.

In this time of unceasing morbidity, one cannot help but feel helpless; it is depressing to watch our neighbors, colleagues and family waste away to a highly contagious pathogen that we cannot completely stop spreading. When we inquire, what can we do to save lives, assist others and mitigate loss, the routine answers involve not attending church, living in masks, staying away from family, skipping school, closing our businesses and frankly sacrificing significant pillars to quality of life. American leadership is anxious to advise the middle class of what sacrifices we can make to reduce COVID-19 deaths but arguably too slow to make universal

reflections throughout our country for ways to continue to improve in our management of the Pandemic.

One of the leading international automotive manufactures, Toyota, might inspire public health improvements as the company adopts a guiding principle for everything they do: "kaizen," which means continuous improvement. Wikipedia, Kaizen, https://en.wikipedia.org/wiki/Kaizen#:~:text=The%20Toyota%20Production%20System%20is,which%20may%20initiate%20a%20kaizen. (Dec. 8, 2020). Despite being one of the most efficient and popular brands in the US, Toyota teaches its staff—both CEOs and line operators—to constantly reflect upon prior performance and ask how the same can be improved in the future? This is true even when prior achievements were very successful. If one of the best car manufacturers can avidly self-reflect on how to make a better nine-times-disposable consumer product, why can't our physicians do the same with respect to treating a human body that can never be traded in? LeBeau, CNBC, Americans Buying Fewer New Cars in Lifetime, https://www.cnbc.com/id/49504504 (Oct. 22, 2012).

Medical experts have been asking us to socially distance for almost a year now, and though their heroism in fighting the virus on its frontlines is noble, we cannot be complacent with the *status quo*. Too many lives depend upon us. We must see how we can *all* keep doing better, doing a little bit more to help our neighbors.

Hospital care is largely regional. For example, in Southeastern Michigan, the largest hospital systems are Henry Ford, Beaumont, and the University of Michigan. DBusiness Magazine, Largest Hospital Systems in Michigan, https://www.dbusiness.com/from-the-top-lists/largest-hospital-systems-in-michigan-2/ (Nov. 17, 2020). Assumedly, each have designated protocols for treating COVID-19 patients that are commonly carried out in their branches. So, regional mapping can be more telling than state or national maps with respect to treatment policies. Johns Hopkins University has tracked cases and deaths for many American counties and reports the top 25 counties by number of deaths, as listed below.

U.S. Map, https://coronavirus.jhu.edu/us-map (Dec. 28, 2020). What is glaring from the Hopkins data is that the boroughs of New York City have been affected the hardest by the pandemic, with six NYC counties making the top 25 list. Moreover, the average death rate for the most morbid US counties is about 2.88%, whereas the national average death rate is 1.7%. Johns Hopkins Coronavirus Resource Center, Mortality Analyses, https://coronavirus.jhu.edu/data/mortality (Dec. 28, 2020). All of Kings, Queens and Bronx counties in New York are more than two standard deviations away from the mean in terms of death rate, i.e., the NY counties have a higher death rate than 97% of the top 25 death counties. Detroit's Wayne County also fares well above the mean morbidity rate at 4.29%.

Top 25 Counties by Number of Deaths				
#	**Name**	**Deaths (as of 12-28-2020)**	**Confirmed Cases (as of 12-28-2020)**	**Approx. Death Rate**
1	Los Angeles	9,438	706,448	1.34%
2	Cook (Chicago)	8,060	383,480	2.10%
3	Kings (NYC)	7,672	115,527	6.64%
4	Queens (NYC)	7,511	116,935	6.42%
5	Bronx (NYC)	5,113	79,308	6.45%
6	Maricopa (Phoenix)	4,906	302,640	1.62%
7	Miami-Dade	4,127	286,662	1.44%
8	Wayne (Detroit)	3,578	83,383	4.29%
9	Harris (Houston)	3,328	225,443	1.48%
10	New York	3,302	59,847	5.52%
11	Middlesex	2,658	N/a	N/a
12	Essex	2,364	N/a	N/a
13	Nassau (Long Island, NY)	2,359	82,233	2.87%
14	Philadelphia	2,356	89,887	2.62%
15	Bergen (Newark)	2,277	N/a	N/a
16	Clark (Las Vegas)	2,260	163,484	1.38%
17	Suffolk (Long Island, NY)	2,243	89,257	2.51%
18	Hidaigo (McAllen, TX)	2,176	N/a	N/a
19	Dallas	1,925	180,806	1.06%
20	Palm Beach	1,860	79,830	2.33%
21	Orange (California)	1,845	144,542	1.28%
22	Riverside (California)	1,829	166,690	1.10%
23	Broward (Ft Lauderdale)	1,811	132,193	1.37%
24	Hartford (Connecticut)	1,790	N/a	N/a
25	Bexar (San Antonio, TX)	1,685	N/a	N/a
			Average	**2.83%**
			Standard Deviation	1.67%
			Mean plus Std Dev 68%	4.50%
			Mean minus Std Dev, 68%	1.16%
			Mean Minus 2 times Std Dev, 95%	-0.51%
			Two standard deviations, 95%	6.17%

This begs an important question: is there anything that hospitals in other counties outside of New York and Detroit are doing to better treat COVID-19 patients? In other words, how can the hard-working physicians therein push themselves further to improve evermore for patients in this homestretch of COVID?

Counties like Dallas in Texas and Riverside in California might have some solutions. This is true because their morbidity rates are 1.06% and 1.1%, respectively, or better than 84% of the top 25 death counties. A person is, therefore, six times more likely to die from COVID-19 in New York City than in Dallas or Riverside. Also interestingly, there are counties like San Bernardino (CA), San Diego (CA), Tarrant (TX) and Bexar (TX) that make the top 20 list for cases but are not on the top 25 death list. U.S. Map, https://coronavirus.jhu.edu/us-map (Dec. 28, 2020)(having 181,812 cases, 142,647 cases, 135,793 cases, and 106,793 cases, respectively—case levels comparable to and exceeding that of the aforementioned NY counties).

Are jurisdictions with lower death rates simply testing more outside of hospitals? Or is it the warmer climate or something else? Notably, counties in cooler weather states like Chicago's Cook County and Philadelphia are still able to yield below average death rates. Also, chillier places like Hudson (NJ) and Westchester (NY) have migrated off the top 25 death list in the last several months. Should the sources to their relative successes remain secret?

Let us not only ask nursing home occupants, churches, small businesses and laid-off employees what they can do to mitigate COVID deaths; we should rightly also petition our hospitals in the most affected regions for ways in which we can continue to improve.

Kristy J. Downing

Kristy Downing is an engineer, intellectual property attorney and author who writes on a potpourri of topics including the law and current affairs.

P (248) 296-0770

E kristyjdowning@gmail.com

W https://kristyjdowning.wixsite.com/enewsletter/covid-19-information