



May 4, 2020

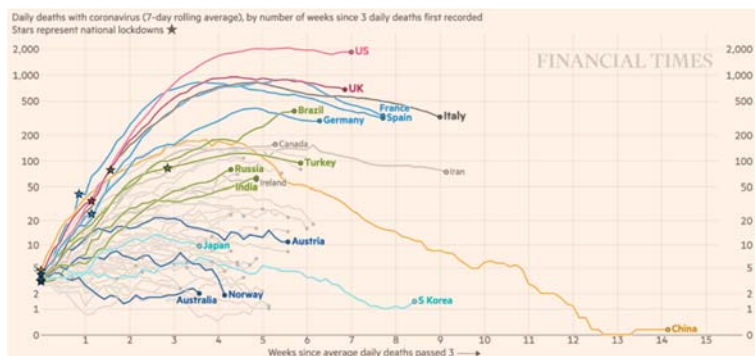
To: All Domestic Employees

From: Pandemic Working Group

Re: **COVID-19: Mortality Curves ~ Making it Simple ~ Freeways ~ Virtual 5-K Results**

Global Mortality Curve & US Trends. Based upon publicly-available data, according to Financial Times, the coronavirus death toll (based upon a seven day trailing average) is either declining or

at a plateau for the countries most affected, including the U.S. (the curve of which is depicted in pink). This would tend to suggest that efforts on flattening the curve are working. What the future holds is somewhat uncertain. While some sources (e.g., the New York Times) report that FEMA is internally projecting higher daily cases and deaths through May as states reopen, other sources (e.g., Fox News) are giving no credence to such projections. From a data-driven point of view, Forbes reports that Iowa, Minnesota, Tennessee and Texas, which have begun reopening, have seen a rise in new cases. In addition, Dr. Scott Gottlieb (former FDA Commissioner) was quoted in Meet the Press yesterday as saying, “We expected that we would be seeing more significant declines in new cases and deaths around the nation at this point. And we’re just not seeing that.” With the nation on something of a plateau, the areas of pandemic growth and contraction continue to shift, with New York, New Orleans and Detroit trending down, while Chicago and Los Angeles are trending up. Given that pandemic-related restrictions and circumstances vary by region, we can expect that federal experts will continue to find it difficult to predict outcomes accurately on a national basis.

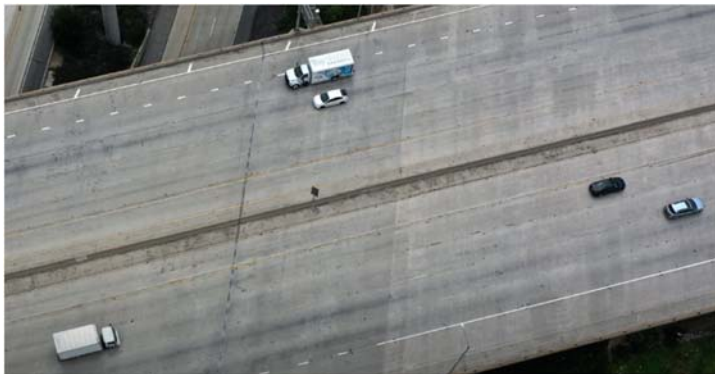


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No One Said it Would be Simple. As we reported on April 22 and April 29, various antibody tests done on a small scale have shown with some consistency that the number of COVID-19 cases is likely underreported, as many persons who had the disease with mild or no symptoms were not counted by authorities. For example, according to one such test, 14% of persons in New York have already had the disease. This fact tends to drive down the infection mortality rate – that is, the rate of deaths among those who get the disease. However, as a countervailing consideration, we also need to take into account the fact that, as reported by Financial Times, there have been a significant number of “excess mortalities” – that is, more people dying than we would expect

from causes other than COVID-19 – since the pandemic. For example, London has seen its death rate more than double, while New York City's has quadrupled in this period, and the increase is not being attributed entirely to coronavirus. According to some data analysis experts, (for example, Clearer Thinking's Spencer Greenberg), the infection mortality rate of COVID-19 (adjusting for recent immunity test results) is between 0.3% and 1.3%. Greenberg goes on to note that, at present, 0.14% of the population of New York City (about 12,300 deaths per 8.4 million people) have already died from the virus. Assuming less than half the population of that city has been exposed, if the entire population were ultimately infected, one could reasonably double the infection mortality rate to 0.3% for NYC. Given that the infection rate for the flu is only about 0.04%, even if we account for underreported coronavirus deaths, this would tend to suggest that COVID-19 is still nearly 10X more deadly than the flu – to say nothing of those persons with underlying conditions.

Freeway Unjammed. Remember the Jeff Beck song, "Freeway Jam"? Of course not, no one does. At any rate, his sentiments, however obscure, have been entirely contradicted by traffic trends on the nation's freeways, expressways and highways since the pandemic took hold, especially here



in California. As photographed by the Wall Street Journal, these thoroughfares are uncharacteristically clear. However, WSJ adds that, in the greater San Francisco area, despite a 90% drop in traffic, highway patrol has issued double the number of citations (nearly 2,500) for speeding in excess of 100 miles-per-hour since March 19 (when the first stay-at-home order issued). According to CHP, one driver was cited for exceeding

150 mph. Typically, one has to go to Daytona to see such speeds. Except this isn't Daytona. Nor is this safe. So, please be careful. – TD

Virtual 5-K. As many of you know, our own Anne Turnbough sponsored the Company's first Virtual 5-K, challenging AMVAC employees to walk, run or otherwise ambulate in some fashion over a distance of approximately 3.1 miles, upload evidence thereof onto our Connect platform and thereby qualify for a raffle. Over 100 employees participated in this event in daylight and darkness, alone and with dogs, both here and abroad. Our raffle winners were – third place, Lucy Cooney, Newport Beach (\$50 – yes, she works for me, no, the fix was not in), second place, Gerardo Suarez – Costa Rica (\$100) and first place Nicholas Deosio – Marsing, Idaho (\$200). Congratulations to all involved and a special commendation to Anne, who managed to bring us closer together at a time when we could use togetherness.

If you have any questions or comments on this advisory, please contact either kellyw@amvac.com or timd@amvac.com.