How I Got the Wuhan Estimates Wrong

Edward D. Duvall 30 May 2020

Back on 3 Apr 2020 I made some predictions about the number of fatalities to be expected by the end of May from the Wuhan virus, based on data then existing. Compare my 3 Apr predictions with the actual numbers as of 30 May 2020:

	Predicted,	Actual,
	3 Apr 2020	30 May 2020
Italy	27,000	33,400
France	22,000	28,770
Spain	21,000	27,125
USA	30,000	105,500

So I under-predicted in each case: for Italy, 19%; for France, 23%; and for Spain, 22%. But the largest error by far was for the USA, where my prediction was low by more than 300%. How did I get it so wrong for the USA, when the predictions for the other three, although incorrect, were not nearly as far off?

It seems there are several reasons. The most obvious one is that the predictions for Italy, France, and Spain were based on more mature data, given that China used the Wuhan virus to attack those nations much earlier. The general behavior of the disease was more fully developed by 3 Apr and the data then existing was a more reliable foundation for a prediction. My use of the data then existing for the USA was premature.

The second reason is that the virus progressed differently in three major areas in the USA than any of the other nations and also differently than most other parts of the USA. These three major areas are New York City and the adjoining states of Connecticut and New Jersey. Of the 105,000 deaths in the USA, approximately 29,000 occurred in New York State, 11,700 in New Jersey, 6,500 in Massachusetts, 3,900 in Connecticut, and 5,500 in Pennsylvania. I had mentioned in the 3 Apr essay that the virus likely would spread differently in those places because: a) the density of the population, the closely-packed living conditions, and the fact that the Wuhan virus spreads much faster than other similar viruses; and b) the fact that many people in NJ and CT travel to NYC regularly on the filthy subway. I noticed those, but failed to take them into account in the calculations since there was no way at the time to determine the effects.

Third, new data suggests that people of African and Asian descent are more susceptible to the Wuhan virus than those of the Caucasian, Semitic, or American native races. If so, that would indicate a higher casualty rate in the USA because about 12% of the population of the USA is of African origin, whereas there are relatively few of (black) African origin in the three European nations.

The fourth reason is that the people in many USA states, especially in the Northeast, were subject to "stay-at-home" mandates via Executive Orders by state Governors. A great many people were affected not only by the virus but by loss of livelihood. It turns out the virus spreads faster indoors than outdoors. In the 1918 Spanish flu epidemic, people were encouraged to leave the windows open in their homes at all times in order to maximize the circulation of fresh air. Whether such advice was given this time, I don't know; suffice to say, keeping people indoors certainly aided the virus and nearly ruined the local economy. It is likely that the Chinese Communist Party is grateful to those Governors for their cooperation.

Fifth, it appears that people in nursing homes suffered very large casualty rates owing to moronic Executive Orders by Governors in at least three states: New York, New Jersey, and Michigan. It has been es-

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timated that up to 40% of casualties in those states arose because of these orders; that would amount to 16,400 deaths in New York and New Jersey alone. Under those orders, nursing homes were required to admit people who had already tested positive for the virus, thus spreading it throughout the most vulnerable population. Once again, the Chinese Communist Party probably has taken notice and supports those Governors for their cooperation.

These five reasons illustrate the general difficulty in making predictions: there are a great many unknowns and extrapolations from premature data can lead to large errors in the estimates. The original predictions of casualties by the CDC estimated 1,000,000 to 2,000,000 deaths in the USA, later revised (after some precautions were taken by the public at the urging of the CDC) downward to 100,000 to 200,000.