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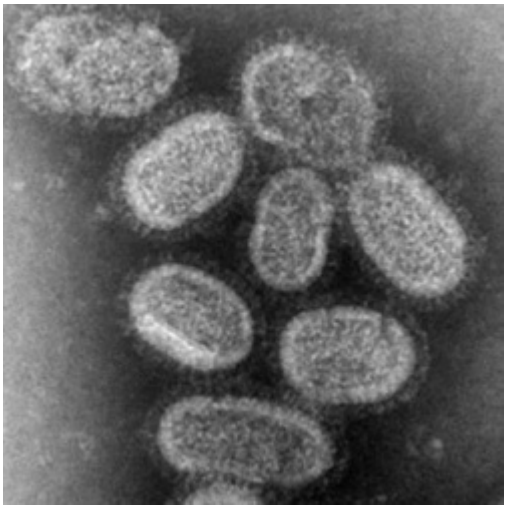
Is COVID-19 A Bigger Threat than Flu?

By Alex Berezow, PhD — March 20, 2020

At the current time, influenza remains the far bigger threat to global public health than COVID-19. Though COVID-19 has a higher case-fatality rate, influenza infects far more people. Of course, that could change.



Credit: Public Domain/Wikipedia [1]

We are living in a very scary time.

The COVID-19 pandemic has triggered something of a global panic. As of now, nearly 250,000 people have been infected and more than 10,000 have died. The global case-fatality rate is about 4%, though that number varies wildly depending on the country. In Italy, it's 8.3%, China 4.0%, U.S. 1.4%, Korea 1.1%, and Germany 0.3%. The reasons for such variation probably include differences in healthcare system quality and preparedness and the detection of mild or asymptomatic cases.

For the sake of argument, let's assume the "real" case-fatality rate is about 1%, which many public health officials think likely. That's still ten times deadlier than seasonal influenza, which has a case-fatality rate of 0.1%. That is why people are scared.

And it's also why a growing number of people believe that COVID-19 is the biggest public health threat today. But it's not, at least not right now. That could change, of course. Unfortunately, those of us who have been trying to rationally explain all this have been accused of "downplaying" the COVID threat. Given the source of these accusations [2], like the utterly reprehensible

DeSmogBlog, it's clear that the underlying motivation is some combination of willful ignorance and malice.

But for those who are actually interested in learning, the following is a pretty standard risk analysis.

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When epidemiologists and public health officials examine risk, they do not simply look at the case-fatality rate. They also examine how likely a person is to contract the disease. An example is very illustrative.

Rabies has a near 100% case-fatality rate. Once symptoms appear, you're almost certainly a goner. Would it therefore be reasonable to conclude that rabies is the single biggest health threat in America? Of course not. Very few people get rabies.

Now, let's apply that logic to COVID-19 and influenza. We know that every year, up to 1 billion people around the world get influenza and about 300,000 to 500,000 will die. The average seasonal flu case-fatality rate is 0.1%. But the sheer volume of cases means that, in the U.S. alone, 22,000 to 55,000 Americans [3] have already died of flu during the 2019-20 season.

As explained above, current data show that COVID-19 has a higher case-fatality rate than flu, perhaps 1%. But will COVID infect a billion people? A hundred million people? Or just a few million or several hundred thousand? The answer to that question will determine whether COVID-19 is a bigger threat than flu. But nobody knows the answer to that question. In some countries, COVID-19 is still spreading rapidly; in others, particularly those in Asia, the number of new cases has dropped.

What we can say is that, in the span of five months (October 1, 2019 to March 7, 2020), influenza infected 36 million to 51 million Americans [3]. At the present time, especially with all the public health countermeasures that have been implemented, COVID-19 is not likely to infect millions of Americans. Add to this the fact that influenza has killed at least 100 times as many Americans as COVID-19, then one is forced to conclude that flu is a bigger threat than COVID. That is not "downplaying" the risk; it's a standard risk assessment.

If the data changes, our conclusions will change. What sort of data could change our assessment?

Variables that Could Make COVID-19 Worse than Flu

ACSH advisor and risk expert Dr. Geoffrey Kabat noted that there are some features of COVID-19 that could potentially make it worse than flu:

- COVID-19 has an R_0 of 2.0-2.5 compared to 1.3 for the flu. That means, in theory, COVID-19 could spread further and faster than flu. (But it doesn't appear to be doing that.)
- The COVID-19 incubation period is much longer (1-14 days with an average of 5 days) compared to 1-4 days for the flu. That means people with COVID-19 are likely spreading the virus before the full symptoms set in for a longer period of time than is the case for the flu.
- COVID-19 has a higher hospitalization rate (19%) compared to influenza (2%), reflecting that this is a nastier virus.
- Unlike what was previously thought, new data shows that many young people require

hospitalization and can exhibit severe lung damage.

For the sake of our health and economy, let's hope we fight back COVID-19 quickly and effectively.
