A lot remains unknown about how many people are infected with coronavirus. One of the few certainties is that far more people are infected than official numbers indicate. A rough calculation suggests anywhere from 150,000 to 3 million global infections.

If a new BBC Persian report is accurate, the death toll from coronavirus in Iran is far higher than the official numbers.

The official numbers, which are being tracked by Johns Hopkins [2], indicate that 34 Iranians have died. However, according to Al Arabiya [3], BBC Persian reports that at least 210 people have died from COVID-19 in that country.

If true, that means two things: (1) The Iranian government is lying (which isn't a surprise); and (2) COVID-19 has infected far more than the number of confirmed cases, which currently stands at 388 in Iran. Assuming that the case-fatality rate of 2% is roughly accurate, the actual number of cases in Iran is closer to 10,000. The virus is out of control in that country. It probably didn't help that the chief of Iran's coronavirus task force [4] contracted the coronavirus.

How Many People Globally Are Infected with Coronavirus?

At this point in time, it is almost impossible to say how many people have been infected. Data is
limited for three reasons:

First, the virus has spread far and fast, outpacing public health officials' ability to test every suspected case and to acquire reliable information. Also, patients are only counted in the official tally if they show up to a hospital and get tested. People who acquire a mild or asymptomatic infection, and hence never see a doctor, will not get counted.

Second, as *Nature Biotechnology* describes, molecular testing kits aren't perfect. They can give false negatives, particularly if the virus sheds at different times and if non-ideal clinical specimens are collected. Given how quickly they were manufactured, the tests themselves can be flawed, such as the CDC's kit.

Third, authoritarian countries like China and Iran routinely lie about infectious disease. China has a history of lying (e.g., about SARS and HIV), and Iran is probably lying right now.

Once again, if we assume that the case-fatality rate is roughly 2%, the global death toll of 2,867 would suggest at least 143,350 cases -- far higher than the current official count of 83,867. However, if the case-fatality rate is lower than 2%, as many epidemiologists suspect that it is, then the virus has spread much further. For instance, if the case-fatality rate is 0.1%, the same as seasonal flu, then 2,867,000 people have been infected.

So, that's the back-of-the-envelope calculation: Anywhere between roughly 150,000 and 3 million people have been infected with COVID-19. The WHO's declaration that the virus might still be contained sounds like a fairy tale.