

Middle East Respiratory Syndrome Coronavirus (MERS-CoV) vs. COVID-19

Middle East Respiratory Syndrome first came to my attention while working in Seoul, South Korea. I was on my way for a doctor visit, and we were instructed to wear a mask everywhere within the facility because of a condition called MERS. As an American who lived in New York City I had never heard of it. Once I returned to the office that day nervous and worried, I asked a co-worker if she had ever heard of the condition. My co-worker Han Byul said it had become a huge problem in South Korea and was highly contagious. The symptoms were high fevers and coughing. At the time I was battling late-stage kidney disease and couldn't risk catching anything. The virus was one of the precursors to what would evolve into COVID-19 and its subsequent mutations. When considering the epidemiological progression of this virus, should think about its origins and expansion throughout the world. In terms of epidemiology some of the factors to consider are socioeconomics in correlation to contagion and migration of disease.¹ Another disease that most recently shut down the world and spread at an unprecedented rate was COVID-19. Both had devastating tolls on the infected, as well as the medical establishment. The difference between them is the containment and spread of each virus. How is with all our technology and medical advancements is it possible illness could be so devastating to our modern world as opposed to the early agrarian world?

Disease is nothing new in the world. As long as there have been people or animals, there has been illness. These viruses were not the first time in human history that sickness has spread globally either. There has been the bubonic plague which spread on by rats with infected fleas, known as the "Black Death." There were other respiratory viruses such as Severe Acute Respiratory Syndrome (SARS). Viruses mutate and change over time evolving much like the hosts which carry them. Covid-19 like most of the other viruses originated in Asia. In early agrarian times,

¹ <https://rdcu.be/cWDHF>

people were settling in small communities for the first time. Also, people tended to stay in localized areas. Since food and family were in the same areas there was little to no reason to move around as before during the hunter-gather stages. Most transport with this time period were for commerce since there was limited modes of travel such as horse and cart.

The spread of disease in the early Agrarian world were limited by these modes of transportation and food. As a result the communities didn't have to deal with widespread cases of epidemics, let alone pandemics. Due to these rural and isolated populations, the spread of diseases could be contained. Furthermore, during this period more than 90% of humanity lived in these small scale communities and moved around so infrequently that there was the burdens of what little healthcare there was at the time.

The networks that spread disease in the early Agrarian world were also limited to the confines of healthcare. There were some herbs that were available to help with symptoms but no medical supplies or antibiotics to help heal the sick. Compared to our modern world with our access to large-scale transportation such as airplanes, cars, trains and the like; the spread of disease is a worldwide phenomenon. Now the spread of disease doesn't take months or years. In today's world it can be a matter of hours. This also means that the technology and medicine can move faster to not only monitor but also help contain the spread of diseases, while racking the mutation and spread of new illness.