Final Essay
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The topic of the article below is covid-19 or the novel coronavirus. Not much is known about this virus aside from how it spreads most of the findings are vague. This paper is written to clarify and assemble different pieces of evidence into one place. This paper will be covering what viruses are, the different types, what type covid-19 is, how they spread as well as where it spreads most. As well as why the coronavirus is so devastating. So the main question is what are viruses and why are they so hard to contain?

What is a virus? A virus by definition is a non living submicroscopic infectious agent[1]. A virus invades the body then attaches itself to a cell. Once attached to a cell it takes over forcing the cell to make copies of the virus. However, viruses do not only infect humans, viruses are able to infect plants and animals as well. Viruses no matter what they infect can impact a wide variety of the planet. In many situations there have been recalls of meat and vegetables due to viral outbreaks. Normally these are quickly settled however in the time of covid this is not the case. Viruses are not a static specimen, as seen with flu seasons.

With viruses being able to infect any living thing on the planet there must be many ways for one to spread.There is waterborne, foodborne, bloodborne, and airborne as the main ways viruses spread. The names are self explanatory for each type. Waterborne viruses are transmitted through water either drinking or swimming. Foodborne is from eating infected foods, plant or animal products. Bloodborne viruses are more complicated as they are transmitted by coming into contact with blood. One such example would be HIV which can be transmitted through blood transfusions if the blood is infected or in other ways. Airborne is the last main type, which as said, is transmitted through the air. Human contact in any of these cases also makes it possible to transmit the virus.

As observed, covid-19 is an airborne virus. This is significant because unlike the other types it is easy to see where the virus came from. Either from bad food, water, or blood. Airborne is transmitted through air making it harder to determine where the infections take place. Airborne viruses spread mostly indoors. As the name entails in a confined airspace it makes sense as to why an airborne virus would run rampant. As seen in [2] the places that suffered most and are suffering from the virus are either densely populated areas or areas that have low health standards. For these reasons the coronavirus is especially devastating in America where it has a bustling city lifestyle in half the country. With densely populated cities and close human contact being the main way this virus spreads it was a recipe for disaster.

Stated earlier viruses are not static and are subject to change. The coronavirus we see today is a mutation of a virus previously only known to happen in animal species. Which would make it a foodborne virus at the start because it was transmitted through infected meat. However, viruses can evolve and that is what makes them hard to deal with.

Mutation of genetic code is no mystery; it is seen all the time in the human population like different colored eyes and hair are all mutations of genetic code. Which when a virus takes over a cell it can mutate as well. Not only can a virus gain immunities, it can change

transmission methods. With covid-19 is mutated into a human virus with which humanity knew nothing about, adding to the severity of its impact.

All the information in conjunction with [2] shows a visual representation of how the world is handling this pandemic. America is the leading country in deaths, infections, and daily infections, all whilst having the most refined pandemic control(the CDC). There have been pandemics in the past that trump these numbers seen today and even pandemics in the past 20 years. However none of them have been this deadly and this unpredictable in the last 20 years.

[1]https://en.wikipedia.org/wiki/Virus

- October 17th 2020

[2]https://coronavirus.jhu.edu/map.html

- Ongoing updated in real time

[3]https://www.cdc.gov/

- July 2nd 2020

[4]https://www.medicalnewstoday.com/articles/196271

- March 30th 2020